

DUN'S REVIEW

THIRTY-FIVE CENTS PUBLISHED BY DUN'S TRADES, INC. 1000 PARK AVENUE



THE FLAGS OF DESTINY

SINCLAIR'S "pipes" have a 280,000,000-gallon thirst!



How big is Sinclair's network of pipelines?

So big that, in order to maintain constant flow, there must be at least 280,000,000 gallons of oil and oil products moving through the system every minute of the day.

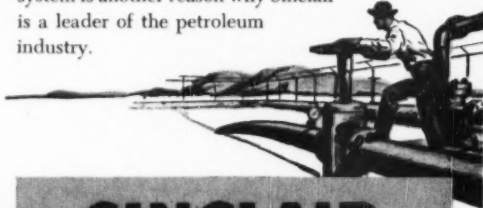
In fact, there is at all times enough "line fill and working stocks" in the crude oil pipelines to supply the total oil needs of the United States for nearly 24 hours . . . and more than enough in the petroleum products line, if it were all automotive gasoline, to provide an average day's fuel supply for every passenger car in the country.

How does Sinclair's pipeline system compare with other pipelines?

Sinclair's pipelines add up to the longest company-owned system in the world—13,861 miles.

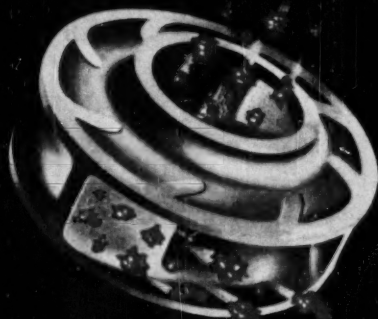
Why does Sinclair operate pipelines?

Because pipelines are the most efficient and economical land method of transporting oil and oil products in bulk. This tremendous pipeline system is another reason why Sinclair is a leader of the petroleum industry.



SINCLAIR
A Great Name in Oil

ABK metal muzzles the bite of abrasion



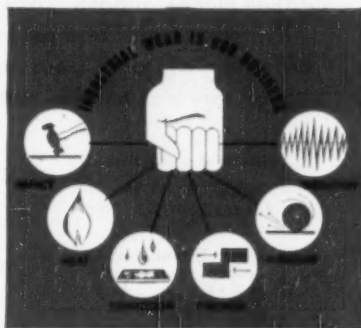
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11,000 tons of abrasive ash scoured the ABK pump impeller you see above, before replacement was necessary. Its service life was five times that of ordinary wear-resistant iron. ABK metal fan liners feeding coal into a furnace lasted 30,000 hours as against 7800 hours for white iron liners. Long-life ABK liners in a cement mill pulverized 2,120,000 barrels of cement, compared to 751,000 barrels turned out by chilled iron liners.

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dredging, coal-coke and steel, where severe abrasive action exists.

The use of ABK metal at points of abrasive wear in your plant may be profitable to you because it produces more work per unit . . . reduces downtime for replacement . . . lowers the cost of installation and cuts lost production hours. ABK metal can be cast in all common foundry forms and shapes. Brake Shoe foundry techniques assure exceptional uniformity throughout ABK castings and between one casting and another, an advantage that contributes to longer operating life. Write for detailed information to Dept. A.




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In many a plant, the whole production line is geared to the slow and costly pace of a few horse-and-buggy machines—while management worries about slim profits and tough price competition. Old machines often steal enough in a few months to pay for the newest, best, fastest equipment.

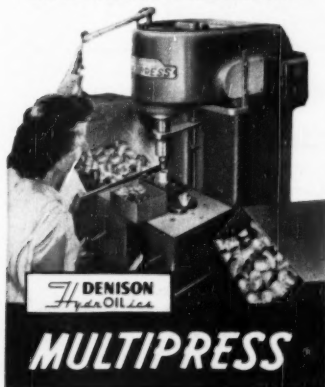
That's why alert management is quick to say "Out With 'Em!" when machines live past their time.

Then too, faster operation isn't the only way up-to-the-minute machine tools cut production costs. MULTIPRESS, for example, has frequently replaced several production steps with one fast, smooth, accurate operation. In addition, it often provides for automatic salvaging of off-size parts or assemblies, slashes rejects, saves materials, and boosts productive time with easier, safer, pleasanter operation.

A quick picture of how different industries trim costs and bolster profits is yours in the booklet, "MULTIPRESS, and how YOU can use it." We'll speed a copy your way, free and without obligation, if you'll have your secretary drop us a note on your letterhead.

The DENISON Engineering Company

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are people...

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Letters

TO THE EDITOR

A GOOD GUESS

There appeared in the July 1950 issue of your magazine an excellent photographic scene of a Minnesota village. . . . We would appreciate your giving us the source of this picture. . . .

STEWART CATO
Northwestern Mutual Fire Assn.
Seattle, Wash.

Several of us have been interested in the frontispiece of your July number which is described merely as *Minnesota Village*. . . .

We have guessed that this might be down in southern Minnesota, possibly along the Mississippi River between Red Wing and Winona. Are we anywhere near right on that?

ALLYN K. FORD
Luther Ford & Company
Minneapolis, Minn.

The town is Weaver (population 150) in the southeastern part of Wabasha County about midway between Red Wing and Winona. The photograph was from John Satterthwaite of A. Devaney, Inc., 227 East 47th Street, New York City.—Ed.

ECONOMY OR PSYCHIATRY

. . . . Small business cannot afford expansion. Materials and supplies are so high priced that the small operator cannot hope to make up the cost. Yet big business keeps on expanding, entering new fields. . . . It looks like we have a schizophrenic economy; the small deflating and the big inflating the value of our dollar. . . .

L. J. SALTER
Salter Canning Company, Inc.
North Rose, N. Y.

FROM A STORM OF PROTEST

In the July issue . . . Frederick M. McDonald . . . implies that the Internal Revenue will accept depreciation on replacement rather than on original cost. The auditor for our company disagrees with this implication and I would like further information as to the present policy of the Internal Revenue. . . .

JOHN M. MIKALSON
Research Products Corporation
Madison, Wis.

. . . . After reading the article, I get



Diesels help boost Seaboard earnings

THE Seaboard Air Line Railroad credits a growing fleet of Diesel locomotives with being an important factor in improving earnings this year. For the first six months, earnings before fixed charges were \$8,251,944, an increase of \$2,134,237 over last year.

First railroad in the South to adopt Diesel power for mainline service, the Seaboard installed its first General Motors Diesel locomotive in 1938. Today's Diesel fleet includes 147 GM units which have accumulated well over one hundred million miles in all classes of service.

Additional units have been ordered for delivery in 1950, as the Seaboard moves toward complete dieselization. This year the road will

handle more than 81% of its freight service, 87% of passenger service and 59% of yard switching with Diesel power.

General Motors Diesel locomotives—with an unmatched record for operating and maintenance economies—have proved themselves the most effective tool available to railroads in their continuing struggle to provide higher standards of service in the face of constantly increasing costs on other items.

Strong, solvent railroads in the hands of competitive industry are essential to America's prosperity and growth. Fifteen years' experience has demonstrated that dieselization with General Motors locomotives is the soundest investment railroads can make.



A Green Light



for Economy in Railroad Operation

ELECTRO-MOTIVE DIVISION

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HANDLE LARGER PAYROLLS

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commitments) when you don't need

our money. And our one charge (unlike dividends) is a tax deductible business expense.



MEET TAX OBLIGATIONS

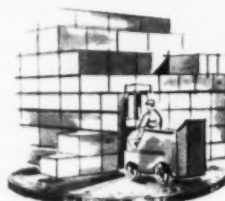
Usually all arrangements are completed and extra money made available within a few days. If you can use more money for any sound business reason, write, wire or phone the nearest Commercial Credit

Corporation office below. Just say, "Send me complete information about the plan referred to in Dun's Review."

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INSTALL NEW EQUIPMENT



FINANCE INVENTORIES



CARRY MORE RECEIVABLES



the impression that the Treasury Department would allow the use of "Market Value Depreciation." Others who have read the article get the same impression, but our tax consultant says positively that the Treasury Department would not allow the resulting values. . . .

WILLIAM G. BURNS
Jabez Burns & Sons, Inc.
New York, N. Y.

. . . . we appreciated reading his stimulating article, but before making any changes we would personally check with the Internal Revenue Department for their proper allowance and approval.

G. W. PARKER
Henry Owens & Company, Inc.
Providence, R. I.

The Treasury Department probably won't want to accept it and will very likely fight it. But you'll never get it if you don't claim it.—Ed.

BUTTON, BUTTON?

As I prepared to write this letter it was interesting to discover how difficult it is to locate your postal address on the masthead of this publication. Finally, I ended up by telephoning the Cincinnati office and it was from that source only that I finally uncovered the address which I am using. . . .

PAUL E. HECKEL
The Cincinnati Bickford Tool Co.
Cincinnati, Ohio

We hide it on the Contents page, too.—Ed.

TORCH BEARER

Would it be possible to get a color print of the frontispiece in your April 1950 issue, *North Shore of Massachusetts Bay*?

Of course, I LOVE Texas after being here three years . . . but that print sure made me lonesome. . . .


(Mrs.) VINCENT WINEL
Wilkinson Schiwetz & Tips, Inc.
Houston, Tex.

FOR THOSE WHO CAN

We would like very much to have three copies of your chart, *The Last Hundred Years* (August 1950) . . .

We intend to post three in our employee reading room both in our cannery and on our plantations. . . .

JEAN B. STEVENS
Hawaiian Pineapple Co.
Honolulu, Hawaii



Look for

WHO'S WHO
IN AMERICA

WHO'S WHO

IN INDUSTRIAL
AMERICA

1946-1949

FIFTIETH ANNIVERSARY
1890-1940

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The Cover



*I*N 1944 at the Dumbarton Oaks Conference in Washington, which lasted from August 21st to October 7th, the broad structure and purposes of the United Nations were first laid down.

The proposals drafted at this conference, which called for the establishment of an organization of nations for the maintenance of peace, resulted in the United Nations Conference on International Organization held at San Francisco, in 1945, from April 25th to June 26th. Here the Charter of the United Nations was drawn.

In the preamble to the Charter of the United Nations, signatory nations have pledged themselves to these high purposes:

"We, the peoples of the United Nations

Determined to save succeeding generations from the scourge of war, which twice in our lifetime has brought untold sorrow to mankind, and

To reaffirm faith in fundamental human rights, in the dignity and worth of the human person, in the equal right of men and women of nations large and small, and

To establish conditions under which justice and respect for the obligations arising from treaties and other sources of international law can be maintained, and

To promote social progress and better standards of life in larger freedom, and for these ends

To practice tolerance and live together in peace with one another as good neighbors, and

To unite our strength to maintain international peace and security, and

To insure, by the acceptance of principles and the institution of methods, that armed force shall not be used, save in the common interest, and

To employ international machinery for the promotion of the economic and social advancement of all people, have resolved to combine our efforts to accomplish these aims.

Accordingly, our respective governments, through representatives assembled in the city of San Francisco, who have exhibited their full powers found to be in good and due form, have agreed to the present Charter of the United Nations and do hereby establish an international organization to be known as the United Nations."

How well these lofty ideals have weathered the five short years since they were first laid down is a matter of individual opinion. Notwithstanding the sincerity, determination, and unselfish approach by the representatives of 59 great nations to the solution of international problems, war with all its terrible consequences and its ugly wake of misery, hunger, and wounds continues to stalk the homes of all peaceful people.

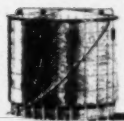
In the muddy rice paddies of Korea, and upon her sullen mountainsides American soldiers and their comrades, fighting under the flag of the United Nations have given up precious lives to "save succeeding generations from the scourge of war."

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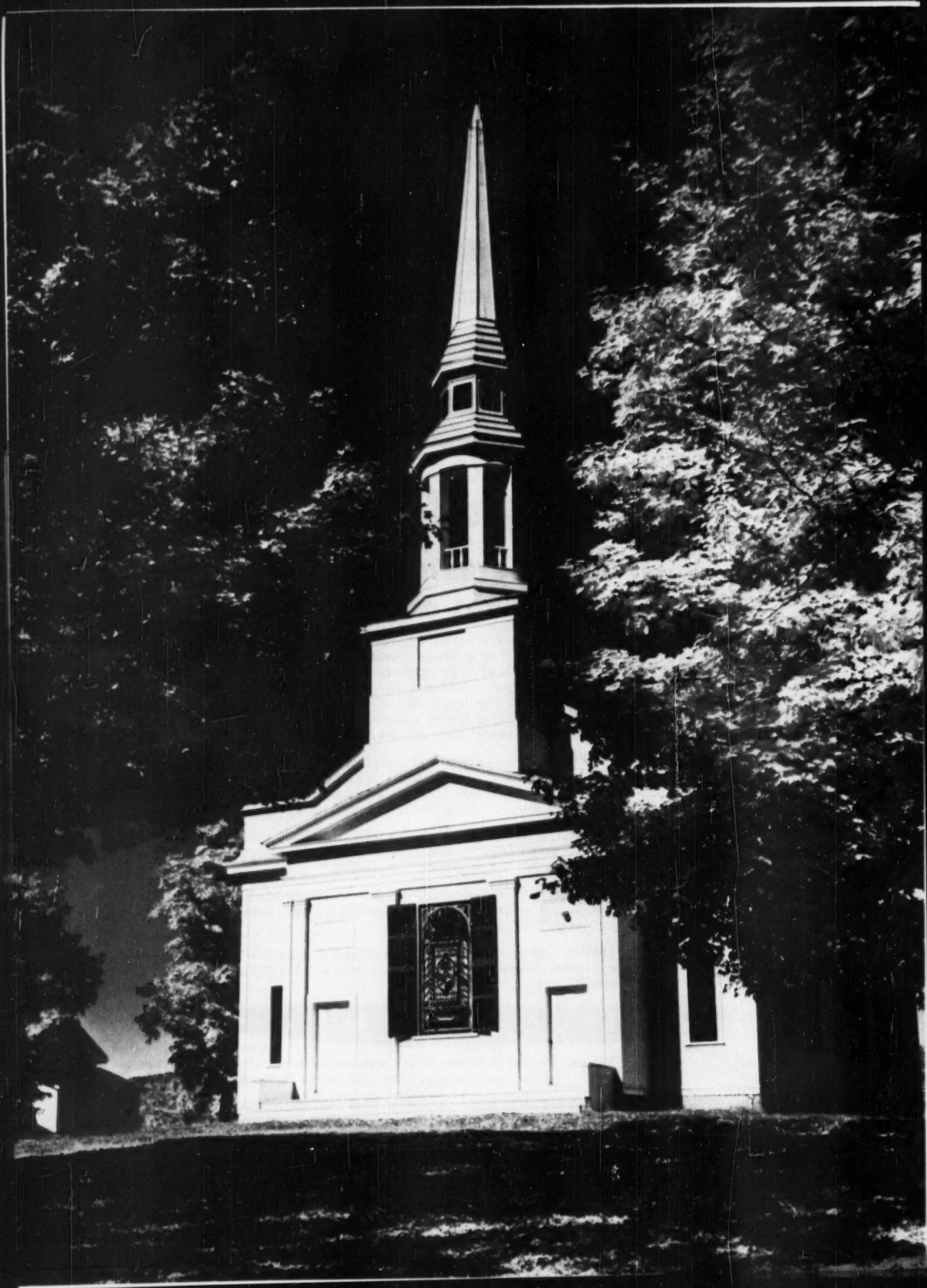
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Write for Technical Bulletin No. WG 12





HUNDREDS OF HOUSEWIVES THROUGHOUT AMERICA DAILY ARE REGISTERING THEIR ACTIONS TO NEW CONSUMER PRODUCTS OR SERVICES—PHOTOGRAPH BY DEANNEY

HOW TO CONTROL MARKETING COSTS

1. Don't be afraid to try new ways of marketing, even though the best advice may be against it.
2. Never enter a market you are not equipped to handle as economically as your competitors.
3. Do not sacrifice quality for the sake of reducing costs.
4. Give the public good, but not ostentatious service.
5. Protect your own markets by competing vigorously, not by seeking "gentlemen's agreements" or by appealing to government.
6. Keep a sharp watch on your competitor's quality and price structure, remembering that you must react quickly to any change that puts you at a disadvantage.
7. Decentralize your organization by giving your sales managers full authority over small sales areas.
8. Settle controversies as soon as possible after they arise.
9. Always play square with your customers, employees, and competitors.

Nine Tested Rules for Efficient Marketing

SAMUEL B. ECKERT

*Executive Vice-President
Sun Oil Company*

MARKETING has grown tremendously in the past eighty years. Since 1870 the volume of goods produced in the United States has increased more than twenty times. To market those goods, the number of people employed has increased ten times in that period, while the number required to produce the goods has increased but three times. In other words, the number of people going into marketing since 1870 has increased more than three times as fast as the number going into production.

For his contribution to the marketing of petroleum products, Mr. Eckert was chosen to deliver the sixth annual Parlin Memorial Lecture before the Philadelphia Chapter of the American Marketing Association. The lecture, of which this article is a part, was presented to honor Charles Coolidge Parlin, a prominent figure in modern marketing research. This award provides recognition to an individual who has made an important contribution to marketing. THE EDITORS.

There are some good reasons why this has happened. First, distribution has become much more thorough. Today not just the wealthy, but all of the American people buy high grade products manufactured in far-away places. In the second place, those engaged in marketing have not been able to utilize machine methods to the same extent as production men.

Goods produced on a mass scale are still sold to individual customers. Although consumer acceptance resulting from advertising has speeded up the selling process, it still is necessary in many instances to employ individual salesmen to deal with individual customers. Consequently, marketing costs have not declined through the years to the same extent as production costs, and the public is critical of that.

The reduction of marketing costs is

one of the major problems facing us to-day. We can find ways to solve it; in fact we are finding ways to solve it. For example, Sun Oil Company's marketing costs during the past ten inflationary years have not risen a fraction of a cent, in spite of the fact that employees' wages have doubled in that period. What principles were followed to make that record possible?

The first is of vital importance to the success of every business organization. It is this: In planning your operation, don't be circumscribed by convention. Dare to attempt something different, if you have reason to believe the new way will succeed. Let me tell you about Sun Oil Company's experience to illustrate the point.

When we at Sun Oil Company were about to enter the retail gasoline business in the early 1920's the leaders in

the marketing of gasoline and motor oils seemed well established. We received much well-intentioned advice, most of which turned out to be bad.

We were told, for example, that to make a place for ourselves, except through the purchase of existing marketing companies, was a hopeless task. But we found this not to be true. We found that there is no such thing as a market so completely controlled that it cannot be penetrated. In fact, it often happens that the most formidable appearing competitor is the easiest to topple, since a marketing organization that believes it cannot be assailed does little for its employees or the public.

Better Marketing Reduces Costs

We were also told that good marketing practise in our industry dictated a gasoline pump at every road intersection; in fact a pump at every corner if possible, for the more outlets the more business. We found, however, that we could offer the public lower prices and better service by concentrating our gasoline sales in a reduced number of properly located stations.

This practise enabled us to pay higher rents to station owners and higher wages to employees. It resulted in our stations having on the average a far greater volume of business than any of our competitors' stations.

Another thing we were told when we first entered the service station business was that the public believed their cars required a high gravity motor fuel. In those days we didn't know much about octane ratings, and gravity was considered the important thing. We were also told that two grades of gasoline were required to meet all the needs of the motoring public.

However, our engineers reported that certain low gravity gasolines performed better in the motor car than high gravity fuels. They could be obtained at lower cost and could be blended into one gasoline which would meet the requirements of all motor cars. That being the case, we asked ourselves, why not market just one brand of low gravity fuel and save on production, storage, transportation, and distribution costs, passing the savings on to the consumer?

Again our advisers had an answer—



SHOPPERS ON FIFTH AVENUE, NEW YORK CITY—DEVANEY PHOTOGRAPH

"The objectives of a good marketing organization are three in number. The first is to best serve the interests of the consuming public. Remember the consumer is king. . . . The second objective of good marketing practice is to best serve the interests of our employees. . . . The third objective is to best serve the stockholders' interests."

and again an incorrect one. The American motoring public, we were told, is not competent to judge between good and bad gasolines; therefore, it was hopeless to go against their previously set opinions about what was good and what was bad. This we found to be the biggest mistake of all. The American motoring public is competent to judge the quality of the products it buys, and the following story illustrates this point.

Some years ago we ceased supplying one of our marketing areas with gasoline from our Eastern refinery and instead began supplying it from our Western refinery. We had made extensive laboratory tests and believed the products of these two refineries were identical; so we could see no reason why the change should make any difference to our customers in that area.

We were surprised to observe, however, that our gasoline sales in that territory began to decline soon after the change was made. At first we couldn't understand it, but shortly we found out that our laboratory men were wrong and our customers were right. The gasoline we were supplying from

our Western refinery was not identical with that of our Eastern refinery. It was inferior in its operation at certain temperatures, a defect our laboratory men had failed to discover because their tests had all been conducted at a constant temperature. Thus, customers judge product quality, and they react quickly if that quality declines.

As a sequel to this story, I might add that after we corrected the deficiency, our sales immediately climbed back to their previous level. We learned our lesson and thereafter tested our products under all operating conditions.

Finally, we were told by our early advisers that gasoline could be successfully moved only in barges and tank cars. Warehouses should be spaced not more than ten miles apart. We proved these notions false. Appreciating the fact that transportation plays a great part in over-all marketing costs, we set about to discover ways to reduce the cost of transporting fuels from refinery to warehouse to service station.

We built an extensive product pipe line system to service most of our marketing territory. It was, I believe, the first pipe line built specifically to trans-



ANBY PHOTOGRAPH

In keeping with the flow of population, metropolitan stores to an increasing extent are establishing branches in suburban communities within their shopping area. Typifying to-day's trend is the attractive store opened in Fresh Meadows, Long Island, by Bloomingdale Brothers, New York City department store.

port gasoline. It reduced transportation costs to one-third of railroad charges. We built distributing plants at various points along these lines and along waterways, being satisfied to locate these plants at intervals of fifty to seventy-five miles. We materially increased the size of our tank wagons and the amount of storage at service

stations, thus making possible low handling costs through larger deliveries.

We more than doubled the rate of loading and unloading our trucks by installation of larger lines, by filling truck tanks through the bottom instead of the top to eliminate foaming, and by using tight connections between trucks and service station tanks.

Meeting the public demand for quick service on a heavily travelled traffic artery near Camden, N. J., is a multi-pump gasoline station capable of handling up to a half million gallons of gasoline a month. This station has decreased the waiting time for the motorist by installing self-service gasoline pumps.

I believe we were pioneers in most of these developments, but to-day the industry is rapidly adopting them.

Sun Oil Company's experience indicates that it doesn't always pay to listen to advice when you are planning marketing operations. And now, having given a thorough warning against taking advice, I can guiltlessly continue to offer it in the form of the principles I began to enumerate.

The Lure of High Profits

The second principle is this: Never enter a marketing territory that you are not equipped to handle economically. If your competitor has advantages resulting from plant location or cheaper transportation, do not try to develop that area until you have provided the facilities that make possible the delivery of your product at a cost at least as low as your competitor's.

This seems obvious, but I have seen many manufacturers lured into markets where profit margins were high, only to be driven out when competition became keen. In every such case, the difficulty lay in the fact that the newcomer conceded some economic advantages which later brought about his undoing.

Third. In striving to reduce costs, do not sacrifice quality. If you have the choice of campaigning on a platform of superior quality at the going price, or regular quality at a reduced price, always adopt the former.

Charles Parlin, who besides being a very able researcher and market analyst was also, on occasion, a highly effective advertising salesman for the

(Continued on page 40)



CAN WE ACCURATELY FORE-
TELL THE FUTURE COURSE OF OUR
ECONOMY? WHILE THIS QUES-
TION HAS YET TO BE ANSWERED
IN THE AFFIRMATIVE, THE EXCIT-
ING WORK WITH BUSINESS FLUC-
TUATIONS CURRENTLY BEING
CONDUCTED BY THE NATIONAL
BUREAU OF ECONOMIC RESEARCH
IS DOING MUCH TO DISPERSE THE
CLOUDS OF UNCERTAINTY.



DEVANEY PHOTOGRAPH

CALLING THE TURNS ON *The Business Cycle*

DAVID A. DIETZ

Assistant Editor, DUN'S REVIEW

ONE OF the more fascinating of all the elements that go into business enterprise is the uncontrollable urge to "forecast" what are termed "trends." Throughout the ages, the entrepreneur, of necessity a taker of risks, was not loathe to temper his traditional mercantile pluck with a sprinkling of sober probabilities. Historically, these probabilities were computed in accordance with the tenor of the times.

When witchcraft prevailed, the tradesman would call upon the local

genies to exorcise the constant threat of bankruptcy. With the advent of modern finance and commerce, the stars and soothsayers were often consulted to determine a sound investment or allay a credit risk. As late as the nineteenth century an economist named Jevons evolved an elaborate explanation of business movements based upon sunspots; wide credence was given this and numerous other "natural phenomena" theories by those impressed with the seeming disparity between human endeavor and the newly-found "laws" of natural science.

To-day, while science still pervades the affairs of man, its character has been

greatly modified; we've grown far more sophisticated in the application of scientific method to our daily lives. This sophistication is reflected, as we would expect, in present-day attempts at predicting the ebb and flow of business, an important prerequisite for making individual decisions within our complex economy.

Scientific research in economic matters, as in an ever-lengthening list of other fields, is now characterized by thoroughness, impartiality, and a keen respect for the possibility of error. Claims and conclusions unearthed under this new discipline, while considered more accurate than of yore, are

paragons of modesty and caution.

Determining what a business man can expect as probable—as well as what he *cannot* expect—is the job of a number of research organizations now actively engaged in studying the direction of our modern industrial economy. One such organization is the National Bureau of Economic Research; its ap-

proach is representative of the many ways sound investigation can profitably be applied to the workings of the business structure.

One major domain of the National Bureau's present program is an analysis of what has come to be called *the business cycle*. This refers to the "ups" and "downs" of aggregate business

activity occurring over a prolonged period. Five such cyclic waves were recorded in the United States between the first and second World Wars. As can be readily seen, the discovery of a successful method of anticipating in some degree the future course of the business cycle would be of tremendous import; it would constitute a far-reaching advance in determining the probability factor in business enterprise.

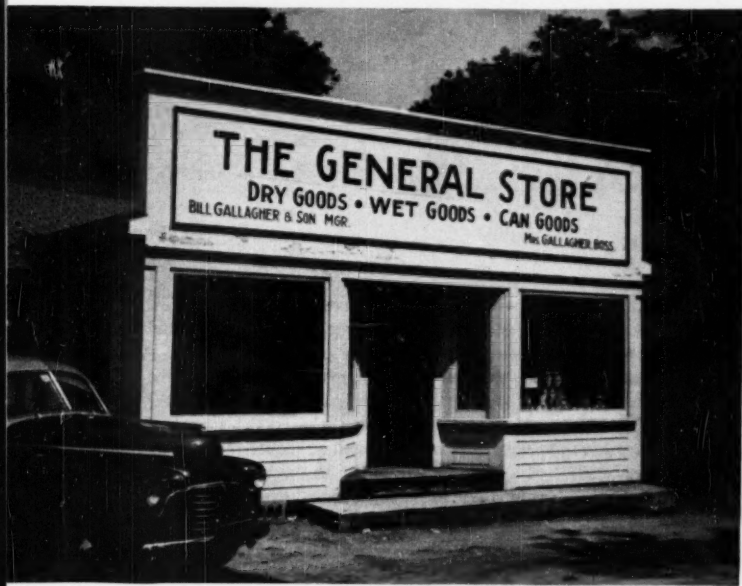
While the National Bureau was not by any means the original prober into the workings of business cycles, it is a pioneer in the application of statistical techniques to this project.

Clues to the Future?

For close to 30 years, under the able directorship of the late Wesley C. Mitchell, the National Bureau has been accumulating a vast reservoir of facts and figures pertaining to the cyclic fluctuations of virtually every conceivable economic activity. There has been a constant sifting and sorting of this mass of material with a view toward unraveling its myriad interconnections; it is hoped that by this means the enigma of the business cycle, like the ancient riddle of the Sphinx, shall eventually be deciphered.

This *empirical* method, one of the cornerstones of modern research, rarely achieves spectacular results; rather it is a slow and painstaking process of building a solid edifice of fact upon fact, and letting the conclusions fall where they may. Following this cautious procedure, concrete headway had been made during the past years by Dr. Mitchell, present Director of Research Arthur F. Burns, and others of his staff. In the National Bureau's Annual Report, published in June and entitled *New Facts on Business Cycles*, Dr. Burns summarizes some of the essential work done to date on the business cycle; he also arrives at certain interesting conclusions based upon the material presented.

If you believe, as most do, that practically all of business is bad during a recession, and that just about everyone benefits from an upturn—then you are in for a surprise in the light of certain findings. One of the first discoveries made by the National Bureau on the basis of statistics was that vari-

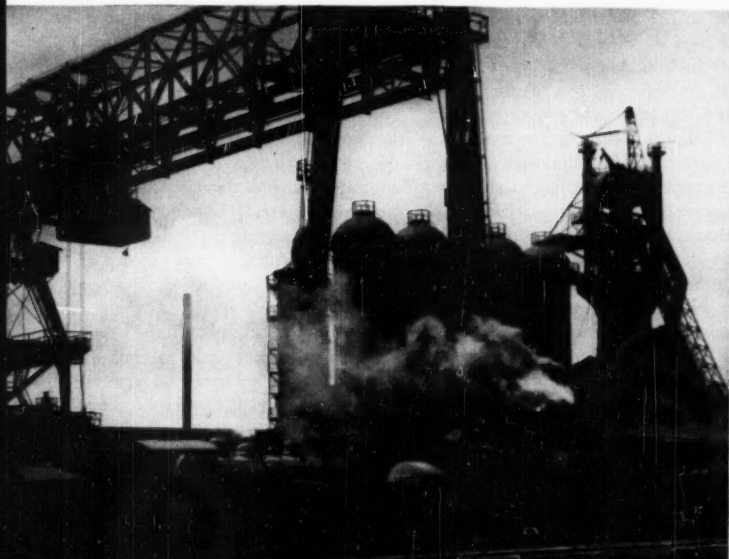


NEW PHOTOGRAPH

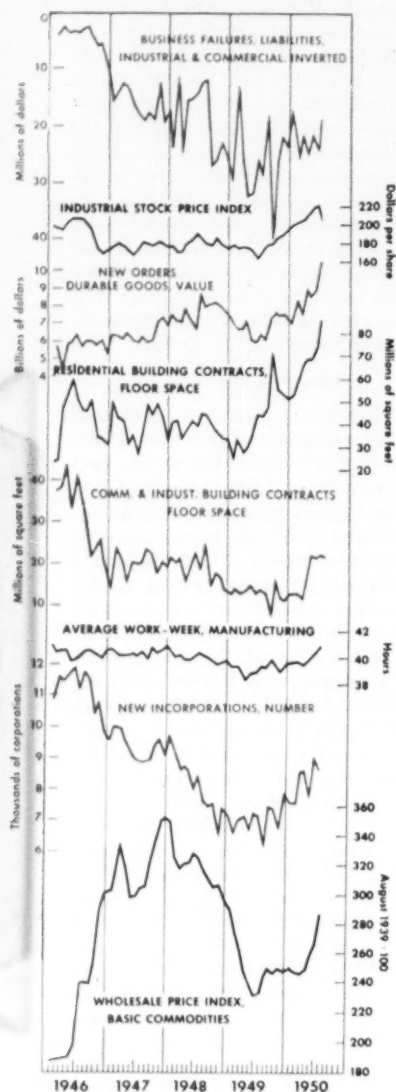
THE LOCAL MERCHANT is largely dependent upon the general well-being of his community; the state of its economy often influences his decisions in the day-to-day activities of buying and selling. A fore-knowledge of trade conditions would be welcome to him, but not indispensable.

MAMMOTH INDUSTRIAL CONCERNS, on the other hand, could not exist but for their successful anticipation of such factors as mass consumer needs and production costs. The perfecting of new forecasting techniques are virtually essential to the advance of industry and, with it, the nation.

NEW PHOTOGRAPH



EIGHT LEADING SERIES



"Previously it had often been noted that when fluctuations of diverse business activities over a number of years were superimposed on the same graph, the high points and low points of the fluctuations tended to bunch, or cluster, a fact which helped confirm the significance of their relationship to the business cycle. With the substitution of the more sensitive selected indicators, the high and low points—termed peaks and troughs—are more inclined to cluster in a well-delineated manner. . . . As in the graph of the eight leading series . . . there is a readily-discernible regularity in the positions of the peaks and troughs. (Although individual series differ in regard to brief 'saw-tooth' movements, the broader swings reveal a workable concomitance.)"

ous isolated business activities move counter to the general trend; furthermore, these "wrong-way" activities have a tendency to increase in number until eventually the general trend itself is reversed. But as soon as this reversal occurs, there already are various activities moving in an opposite direction. These, in turn, also increase in number until the direction of the trend is once again reversed.

From this it can be seen that each phase of the cycle is inexorably bound up with every other; recessions contain the seeds of recoveries, and within each recovery lurk the elements of a recession!

Further research, focusing upon the behavior of the non-conforming activities, brought to light two additional salient facts, both capable of development as possible aids to prediction. The first is that the proportion of expanding to contracting activities appears to follow a regular pattern. To wit, the number of activities that move contrary to the direction of aggregate activity itself increases or decreases according to the position of the aggregate in the business cycle.

This ratio of increase or decrease, when plotted on a graph along side of a general index of business activity, becomes what Dr. Burns calls the "unseen" cycle. The "unseen" cycle—which measures the proportion of conforming activities to the non-conformers—moves in the same direction as the index of aggregate activity during the early stages of the latter's expansion or contraction, but changes over to the opposite direction during the final stage (just before the aggregate itself is reversed).

If, for example, the aggregate is in a recovery phase, the proportion of expanding to contracting activities increases; then, a few months or so before the recovery is at its height, there is a decrease of expanding activities which presages the ensuing recession. In this way, the distribution of expanding and contracting activities at given periods, the National Bureau thinks, can be made into a useful tool for anticipating the turning points of general business.

Another fact that can be of use in this respect is that somewhat the same activities are found among the non-

conformers. Since some of these specific activities can usually be counted upon to lead the aggregate, they can be watched as a possible clue to the future direction of economic flow.

At this point one might wonder: if the National Bureau has at its disposal such seemingly sure-fire methods of foretelling business conditions, why doesn't it simply padlock its research department and set itself up as a sort of business men's Oracle of Delphi? One reason, of course, is its status; it is a non-profit enterprise devoted to impartial fact-finding that emphasizes "pure" research.

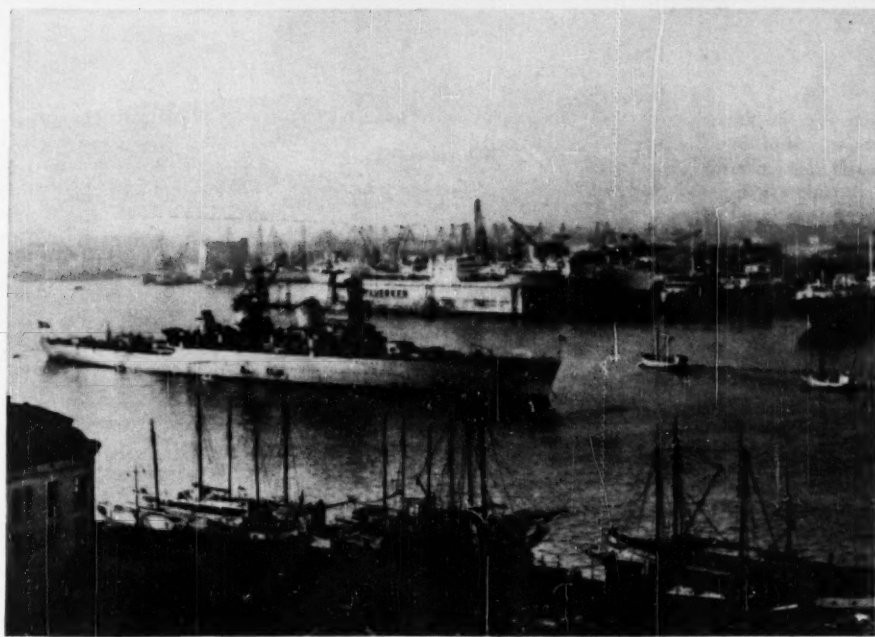
The Core of the Enigma

Even if stark prediction were in order, however, it would be quite impossible of fulfillment at this time. For despite 30 years of arduous labor, the application of scientific methodology to the age-old problem of business forecasting is still in its infancy. A chronic block to progress has been the perplexing variability in the behavior of business activities. Consequently an immediate concern of the National Bureau has been to single out just those activities faithfully mirroring the general business picture.

One who is concerned with this vital task is Geoffrey H. Moore, the Associate Director of Research. A behind-the-scenes peek at what has been achieved to date is furnished by Dr. Moore in a recent National Bureau publication, entitled *Statistical Indicators of Cyclical Revivals and Recessions*. Herein is described the Herculean efforts to find those business activities most likely to portend good times or bad.

Because of their relative superiority for the purpose in hand, certain key business activities are referred to by Dr. Moore as *statistical indicators*. Some indicators, such as the daily stock market average, are familiar to all of us; some other significant indicators are freight carloadings, new incorporations, industrial production, and new orders for durable goods. At the start of the search for useful indicators, more than 800 different series of business activities were subjected to rigorous scrutiny (a series is the recorded fluctuation of a single activity over a period of time).

(Continued on page 51)



PORT OF GÖTHEBURG, SWEDEN—THE AMERICAN SWEDISH NEWS EXCHANGE, INC., PHOTOGRAPH

Sweden: DEMOCRACY OF THE NORTH at Mid-Century

CEDRIC LARSON

*S*WEDEN'S economy has come to be looked upon by the world at large as something in the nature of a model, or shall we say "test-tube," for new progressive designs for living in the social, economic, and industrial realms.

By rare good fortune, Sweden has managed to escape the maelstrom of two twentieth-century wars of unprecedented fury and has rounded out close to a century and a half of continuous peace. While her economy has been affected by the turbulent events going on in Europe, the nation itself has been spared the violent and cataclysmic changes wrought by a shooting war or by invasion, occupation, or cities blasted to rubble.

The Swedish temperament exhibits a peculiar mixture of conservative sto-

*T*HE ONLY SCANDINAVIAN NATION TO ESCAPE THE PHYSICAL DEPRIVATIONS OF WORLD WAR II, SWEDEN NEVERTHELESS SUFFERED SHARP ECONOMIC REPERCUSSIONS. HOW DID SHE STRIVE TO COPE WITH HER POST WAR DOMESTIC AND INTERNATIONAL TRADING PROBLEMS? WITH WHAT SUCCESS HAVE HER EFFORTS TOWARD ECONOMIC STABILITY BEEN REWARDED?

licity and progressivism. Changes are slow in coming, but once made there is no back-tracking. In business as well as social planning, the Swede's traditional policy is to exercise foresight and caution, to blue-print carefully, and to predict with amazing accuracy.

But the topsy-turvy condition of the money market in the post-war world combined with the rising level of world prices during the same period conspired to give the leaders of business and commerce in Sweden many knotty problems to solve they had scarcely foreseen a few years earlier.

To begin with, Sweden had emerged from the V-E Day period in a strong financial position. The gold reserves of the Royal Riksbank were between two and three billion kronor in June 1945. Foreign trade and shipping were at an all-time high and economists were seriously concerned with the problem of over-employment. Her financial resources were so great that she was able to grant four billion kronor in foreign loans to European countries after World War II for getting their economies restarted and rehabilitating private enterprise.

Then in July 1946 an ill-starred revaluation decision was made to appreciate the Swedish krona in terms of the dollar by 17 per cent (from 4.2 to 3.6 kronor to the dollar) in an effort to keep United States' high prices from extending to Sweden. To-day this step is generally admitted to have been a mistake and a bad one.

The purpose of this revaluation of course was to stave off the repercussions of rising world-market prices on the domestic price level in Sweden. As such it might have been justified, but only on one condition—that the Government do everything possible to control internal inflationary forces. But the government was unwilling to enforce such a restrictive monetary policy.

Moreover, the Government extended the scope of the social services, launched an ambitious housing program, and at the same time endeavored to pursue a cheap money policy adopted as a spur to investment.

Blighted Export Hopes

To finance all these undertakings direct taxation showed a sharp upswing (although exemptions allowed for profits put back into private business enterprises stimulated capital expenditure) and absorbed labor from export industries. Externally growing restrictions of world trade due to the dollar shortage and the practise of European states to minimize their imports rather than striving to increase inter-European trade blasted the hopes of Swedish leaders for a ready market for their wares.

Imports shot upward unaccompanied by a parallel increase in exports, while prices and wages soared. Before the brakes could be applied to this so-called "exuberant policy" and corrective steps taken, the financial plight of Sweden became a source of grave concern and even alarm to the nation's leaders.

The Royal Riksbank's gold and exchange resources showed a progressive deterioration from an earlier post-war level of three billion kronor to a bare 350 million by the Summer of 1948. Sweden's U. S. dollar reserve between June 1945 and June 1948 had shrivelled from 456 million to 18 million dollars.

SWEDEN'S TRADING PARTNERS

IMPORTING COUNTRY	1949 IMPORTS	PER CENT OF ALL EXPORTS
	IN MILLIONS OF KRONOR	
Great Britain	746.3	17.2
United States	415.5	9.6
Germany	316.1	7.3

EXPORTING COUNTRY	1949 IMPORTS	PER CENT OF ALL IMPORTS
	IN MILLIONS OF KRONOR	
Norway	416.3	9.8
Germany	319.1	8.0
Great Britain	727.2	17.1

Source: Svenska Handelsbanken, Stockholm.

But this condition, alas, was not confined to gold and exchange resources or dollar reserve holdings. Heavy speculation against the krona had manifested itself right after the currency appreciation of July 1946 and continued unabated month after month, a speculation which contributed not a little for the very adverse development of Sweden's balance of payments in the ensuing years.

Another factor in Sweden's economic post-war slump was the fact that for many years America has been the major market for Swedish pulp exports, which might be said to comprise the backbone of Sweden's dollar earnings. In 1947 the United States purchased 530,000 tons of Swedish pulp or 30 per cent of the total volume of pulp exports from Sweden.

Unfortunately for Sweden, in the latter half of 1948, the situation of the American pulp market changed strikingly.

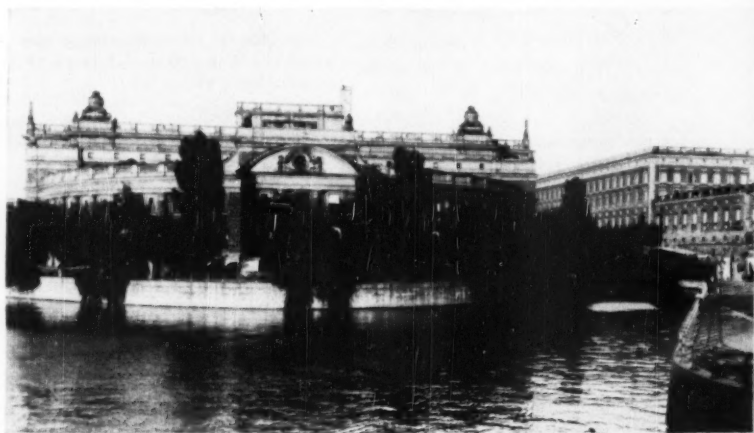
There was a big drop in prices and buyers showed extreme reluctance to renew orders for Swedish pulp which was priced right out of the market.

Swedish sales for all of 1948 dropped to 300,000 tons and during the first half of 1949 plummeted to virtually nothing. The reason for this was not far to seek. From \$150 per ton in 1948 the average pulp price in the United States fell to around \$90 or \$95 in the Summer of this year or about 40 per cent.

Swedish exporters found it most difficult to adjust to this rapid drop which actually meant selling at a loss in many cases, especially since favorable prices could be found in other markets. The result was a shift-over of Swedish pulp exports from our country to non-dollar markets and consequently a serious aggravation of Sweden's dollar crisis.

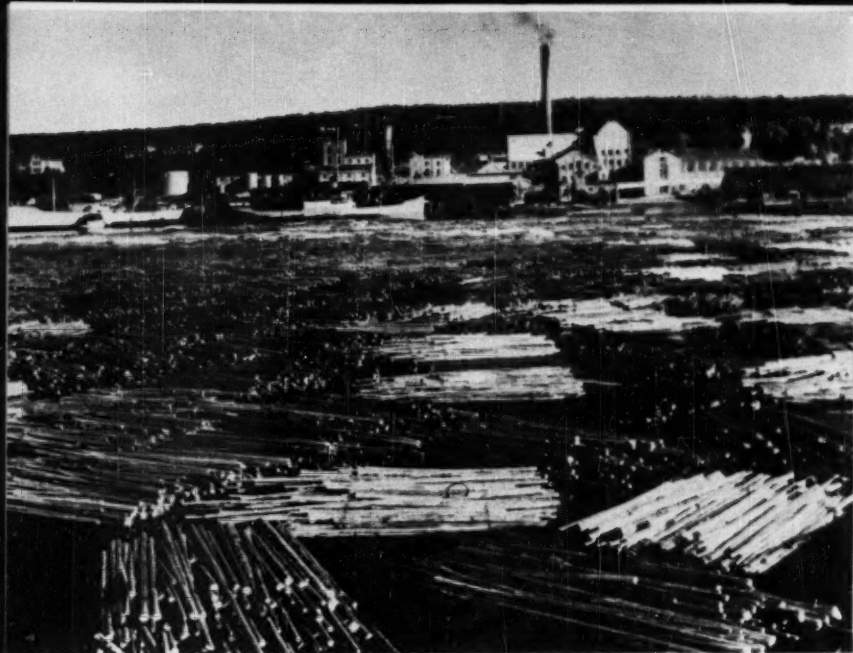
During the first half of 1949 Swedish exports of all goods to our shores fell to a mere 86 million kronor compared with 184 million during the first half of 1948. Despite Marshall Plan aid to Europe, imports from the United States had to be cut from 439 million kronor to 200 million kronor in the corresponding periods.

It soon became obvious that the Swedish pulp producers would not be able to compete effectively with the Canadian and American pulp manufacturers at the then-prevailing rate of



THE BANK OF SWEDEN—THE AMERICAN SWEDISH NEWS EXCHANGE, INC., PHOTOGRAPH

"Despite the rather uncertain financial and economic dilemma of Sweden one year ago with reference to foreign trade, particularly to the dollar area, we can see a balanced financial, trade, and industrial picture emerging by the end of 1950. The inflationary pressure that was a serious problem at the close of 1949 has gradually disappeared and the volume of foreign trade is moving upward."



STOCKHOLM AWAITING THE MILL—THE MILL IS SWEDISH PULP EXCHANGE, INC., PHOTOGRAPH

"For many years America has been the major market for Swedish pulp exports. With a large post-war drop in American pulp prices, Swedish pulp was priced out of the dollar market. The result was a shift-over of Swedish pulp exports to non-dollar markets and consequently a serious aggravation of Sweden's dollar crisis."

exchange. Gradually the change in market conditions was beginning to be felt also by other Swedish exporters; for instance, in the steel and engineering industries in which cases it also became obvious that the competitive efficiency of the Swedish exporters was hampered by relatively high costs.

And so it was that over in Stockholm last year about this time, the financial experts and top economists were frankly stumped. Sweden's foreign trade was slumping badly and her dollar shortage was growing more acute. Foreign trade experts were racking their brains for new ways of swapping, in effect, Swedish pulp for American automobiles and mineral oils, or swapping Swedish butter for Swiss watches.

The over-all socio-economic and financial picture a year ago was not too happy a one. To many keen economists it seemed perhaps as if, in spite of all efforts, a series of lean years, like the ill-favored kine of Pharaoh's dream, had arisen to plague the Swedish economy.

It is true that there was no actual want or privation in Sweden in the Summer of 1949. But jobs were not too easy to find, and the housing shortage was severe. At times it looked as if the austerity type of existence, which has characterized Britain in the post-war period, might come to roost in little Sweden, too.

For two years or more the nation had been coasting along on its accumulated gold reserves, dollar and exchange balances, or in other words, eating up steadily certain of its national capital liquid assets. This condition could scarcely be prolonged indefinitely.

A Solution Sought

During the Summer of 1949 the financial physicians were spiritedly debating what kind of a shot-in-the-arm to administer the sick patient, the export industries, particularly exporters to dollar countries, so that he would become at least ambulatory. There were many schools of thought and diverse remedies were suggested.

One of the most hotly debated points was that of possible devaluation. But even the devaluationists were split into different camps. One faction would devalue drastically, another only moderately, and a third would take the step only as part of a general currency realignment on the part of all countries of Western Europe.

But while the classical economists and the hard-headed bankers were busy wrangling over the theoretical effects of possible devaluation upon foreign trade and internal economy, Great Britain, herself hard-pressed by mounting deficits, made world economic history on September 18, 1949, when she

seized the initiative by devaluing the pound sterling from a dollar value of \$4.03 to \$2.80 or by 30 per cent.

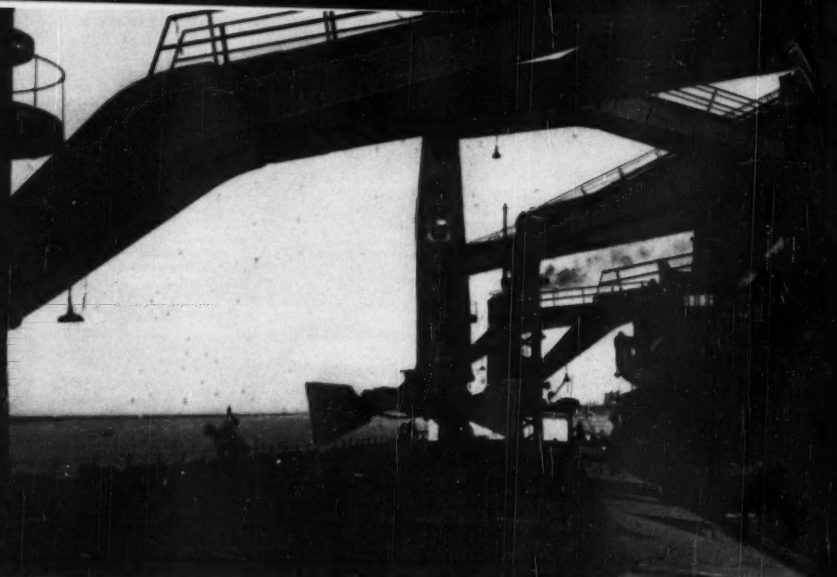
Virtually all the countries of the Western European economic orbit, as well as out-lying nations in remote parts of the world, followed the British lead almost at once, so closely were their currencies tied up with sterling and their trade relations intertwined with those of the United Kingdom.

Prior to the British action, the Swedish Government had steadily argued against devaluation. This stand was based partly upon the agreement reached with trade unions for a freezing of wages conditional upon stability of the cost of living.

But the avalanche of currency readjustments caused by the earth-shaking British step placed the problem of devaluation in Sweden in a wholly new light. All resistance to krona devaluation completely collapsed. Devaluation was transformed from a threat or at best a hazard to a well justified defensive measure.

The real question which faced the Swedes on that financially historic day in September 1949 was not at all whether they should devalue, but to what extent. During the day following the sterling devaluation the Swedish Government and the Royal Riksbank (Continued on page 55)

Fourteen Important Ratios



LOADING IRON ORE ON BARGE ON LAKE ERIE—DUVANEY PHOTOGRAPH

RICHARD SANZO

*Specialized Report Department
DUN & BRADSTREET, INC.*

DURING 1949, the operations of numerous individual wholesalers were influenced by three important factors. These three factors were declining dollar sales, falling prices, and a trend toward slower collections.

Aggregate sales of wholesalers for 1949 of \$89.8 billion were 10.5 per cent below the aggregate wholesale sales of \$100.3 billion for 1948 according to United States Department of Commerce.

Lower price trends are illustrated by the Wholesale Price Index compiled by United States Bureau of Labor Statistics, the index declining 6.8 per cent or from 162.4 on December 31, 1948 to 151.3 on December 31, 1949. Certain of the commodities included in the Index reflected an even larger decline, such as dairy products (9.8 per cent), drugs and pharmaceutical (19.7 per cent), meats, poultry, and fish (12.4 per cent), petroleum and petroleum products (11.0 per cent), paint and paint materials (13.6 per cent). On the other hand, more moderate declines were reflected by the index for clothing (2.6 per cent), plumbing and heating materials (1.7 per cent), shoes (2 per

cent), tires and tubes (2.8 per cent).

The trend toward slower collections is indicated by a comparison of figures reflecting median "Average Collection Period" compiled by Mr. Foulke for 1949 with those prepared for 1948. This comparison discloses that the Average Collection Period was longer for 1949 than for 1948 in 19 of the 24 wholesale lines on which this annual study is based.

Median increases in the Average Collection Period were particularly noticeable for wholesalers of automobile tires and tubes (11 days), dry goods (8 days), hardware (6 days), lumber (13 days), lumber and building materials (9 days), knitted outerwear (9 days), men's and women's shoes (11 days), wines and liquors (13 days), women's wear (7 days). In 10 of the 24 lines, the median Average Collection Period was above 35 days and was as high as 53 days for men's furnishings. The median Average Collection Period exceeded the average for five pre-war years 1936-1940 for wholesalers of fresh fruits and produce, gasoline and lubricating oil, and groceries.

When the trend in collections of an

individual business has become less favorable, and at a time when net sales have declined in a period of falling prices, it becomes important to determine whether or not necessary adjustments have been made to maintain a proper balance in financial condition. A particularly appropriate point of adjustment is inventory which must be well balanced not only in relation to net sales, but also to net working capital.

These two inventory ratios reflect particularly interesting changes for 1949 compared with 1948 among the 24 wholesale lines studied. The median turnover of inventory as measured by net sales increased principally among wholesalers of automobile tires and tubes, butter, eggs and cheese, confectionery, drugs and drug sundries, electrical parts and supplies, gasoline and lubricating oil, lumber, and knitted outerwear. Decrease in the median for net sales to inventory were reflected only among wholesalers of dry goods, hosiery and underwear, and lumber and building materials.

Median inventory was lower to net working capital in 18 of the 24 lines.

(Continued on page 36)

Fourteen Important Ratios

Line of Business (and Number of Reporting Concerns)	Current Assets to Current Debt	Net Profit on Net Sales	Net Profit on Tangible Net Worth	Net Profit on Net Working Capital	Net Sales to Tangible Net Worth	Net Sales to Net Working Capital	Average Collection Period	Net Sales to Inventory	Fixed Assets to Tangible Net Worth	Current Debt to Tangible Net Worth	Total Debt to Tangible Net Worth*	Inventory to Net Working Capital	Current Debt to Inventory	Funded Debt to Net Working Cap.*
	Times	Per Cent	Per Cent	Per Cent	Times	Times	Days	Times	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent
FOR 24 WHOLESALE TRADES—1949—MEDIAN AND QUARTILES														
Automobile Parts and Accessories (180)	5.79 3.95 2.73	4.67 2.20 1.22	14.72 7.08 4.02	20.50 11.14 5.63	4.16 3.10 2.43	5.76 4.35 3.45	25 30 38	8.2 5.4 3.4	5.6 13.6 26.0	15.8 27.3 42.5	29.2 41.5 65.3	58.2 76.2 98.2	29.3 47.0 68.1	4.9 12.1 26.4
Automobile Tires and Tubes (27)	3.12 2.58 1.90	3.52 1.73 0.30†	9.24 6.00 0.51†	11.28 8.39 0.98†	4.82 3.10 1.72	5.57 4.58 3.25	32 38 51	8.1 6.3 3.4	5.4 12.2 34.1	28.9 43.6 71.4	25.6 53.1 122.1	59.2 90.0 106.3	51.0 82.0 98.7	3.6 15.2 19.6
Butter, Eggs, and Cheese (13)	4.16 2.41 1.88	0.98 0.25 0.34†	9.81 3.49 1.74†	11.22 4.41 4.91†	19.62 14.61 10.90	25.82 14.61 11.10	11 15 20	57.0 27.3 11.1	6.0 18.4 24.0	25.8 44.5 65.0	55.5 71.1 112.5	31.4 48.1 75.0	79.0 109.9 262.7	27.6 53.6 138.0
Cigars, Cigarettes, and Tobacco (79)	4.59 2.52 1.81	1.23 0.88 0.42	16.48 11.07 4.81	26.73 15.33 5.99	17.59 12.29 8.09	29.74 16.65 11.43	10 15 18	37.3 23.6 15.3	5.4 12.9 23.9	23.2 53.4 113.5	85.1 96.2 107.8	51.8 73.5 107.8	65.5 100.0 131.6	14.1 27.0 47.4
Confectionery (29)	9.21 3.38 2.11	1.99 0.93 0.40	15.16 11.68 2.58	23.37 16.55 4.38	14.70 9.05 3.32	20.00 13.78 5.80	14 17 29	28.1 18.0 8.1	12.2 16.6 42.4	9.4 30.5 48.9	26.2 65.0 79.2	43.0 64.9 112.8	58.9 68.6 91.0	17.5 27.7 87.9
Drugs and Drug Sundries (56)	4.24 3.11 2.38	3.80 1.80 0.65	16.25 8.61 5.60	17.01 10.47 6.32	8.28 5.12 4.09	9.27 5.81 4.28	16 29 36	10.9 7.6 5.6	3.5 8.2 19.5	26.0 41.7 59.7	50.3 88.5 114.5	69.1 88.4 103.5	40.8 58.3 75.4	11.6 20.7 46.2
Dry Goods (162)	10.49 4.57 2.85	2.66 0.77 0.04	11.47 4.02 0.14	13.22 4.40 0.16	5.62 3.72 2.62	6.88 4.21 2.82	30 39 51	9.5 6.2 4.9	1.2 4.1 12.7	59.7 26.0 49.5	10.2 73.9 121.7	41.0 58.9 76.7	19.3 44.6 71.9	8.6 21.7 41.8
Electrical Parts and Supplies (103)	3.90 2.70 2.08	3.76 2.25 1.49	10.84 11.30 6.89	25.75 13.41 8.00	7.81 5.02 2.90	9.32 6.22 5.72	29 35 46	11.6 8.6 4.7	5.3 11.3 23.0	27.1 44.7 70.5	43.5 68.5 87.6	52.4 71.8 99.7	58.0 76.5 110.6	11.4 15.4 28.4
Fruits and Produce, Fresh (52)	5.74 3.78 1.98	2.83 1.19 0.31	17.05 8.79 2.37	31.98 17.85 4.06	14.97 9.78 5.25	21.37 16.79 11.01	9 14 24	49.7 27.5 17.4	10.6 23.8 42.6	14.5 25.8 52.2	34.4 67.7 171.6	24.1 41.7 79.8	32.7 118.9 112.0	22.1 33.4 76.1
Furnishings; Men's (29)	14.41 4.82 3.43	5.60 2.00 0.27	11.62 5.79 0.73	22.91 6.01 0.78	3.51 2.73 1.61	4.24 3.14 1.94	26 39 58	8.4 6.7 5.2	1.5 2.9 17.2	7.2 22.0 39.9	15.1 63.9 104.2	36.6 44.4 107.5	22.3 39.8 77.0	4.5 55.5 71.7
Gasoline and Lubricating Oil (47)	3.46 2.04 1.65	2.62 1.90 1.14	17.16 10.57 7.70	41.31 24.85 17.25	8.76 5.58 3.55	18.30 11.24 8.09	19 25 30	11.8 20.6 9.3	22.5 47.1 69.2	21.5 42.1 68.2	38.1 77.8 120.5	35.3 72.5 98.2	56.0 137.4 217.7	14.5 55.2 110.4
Groceries (256)	7.67 3.55 2.29	1.79 0.76 0.14	11.87 6.83 2.49	14.64 8.31 3.02	10.19 7.38 5.14	12.93 9.29 6.46	11 14 22	12.9 9.9 7.5	7.9 14.8 27.0	14.0 33.8 65.0	52.6 65.7 106.6	65.1 93.6 128.7	22.4 44.1 66.6	10.8 21.6 45.4
Hardware (145)	7.22 4.31 2.78	2.55 2.89 1.84	15.51 9.44 5.31	16.94 11.16 6.18	4.86 3.12 2.50	4.83 3.89 3.11	24 34 41	6.2 4.7 3.6	4.1 11.3 24.7	13.3 27.9 42.8	49.2 76.8 97.3	64.5 81.3 101.7	22.9 39.1 62.0	15.0 28.0 53.1
Hosiery and Underwear (46)	13.98 5.62 3.36	3.98 2.43 0.65	14.95 5.84 2.30	15.40 8.71 3.02	4.58 3.24 2.12	5.10 3.67 2.84	21 37 46	11.9 9.1 7.2	1.3 2.6 8.7	7.5 20.5 32.1	18.0 54.1 100.0	29.7 48.9 68.6	27.9 43.4 74.1	6.2 12.8 17.4
Lumber (103)	6.83 3.01 2.21	2.58 1.29 0.31	16.10 8.63 1.87	20.95 9.92 2.06	10.92 7.82 3.45	19.15 11.27 7.71	24 36 96	32.8 15.3 7.4	2.5 5.3 20.2	11.7 32.6 56.0	29.1 52.2 111.2	35.5 59.8 95.3	41.0 74.3 124.0	6.4 18.7 15.7
Lumber and Building Material (55)	6.58 3.09 2.24	4.29 3.00 2.43	19.05 10.65 7.41	22.54 18.40 12.19	5.13 3.30 2.59	8.13 5.44 3.46	26 36 45	7.8 5.9 5.0	6.9 19.4 34.7	11.6 29.7 64.0	13.6 46.0 104.5	25.1 70.8 100.6	36.2 59.3 98.0	12.1 23.2 42.8
Meat and Poultry (37)	4.07 2.90 1.95	1.95 0.79 0.22	22.59 8.34 2.66	31.68 12.15 3.59	15.13 10.59 9.08	11.89 16.20 11.63	9 12 27	98.5 48.9 24.6	9.7 22.8 46.4	15.9 37.1 51.7	42.9 76.4 105.5	27.0 51.8 89.7	74.8 108.9 195.4	17.0 48.1 110.5
Outerwear, Knitted (26)	20.53 6.39 2.80	6.83 2.32 0.22	16.09 7.88 1.04	28.38 8.03 1.06	4.30 3.60 1.79	5.20 3.87 3.26	27 37 44	11.0 9.2 6.0	0.9 1.7 4.1	4.7 14.9 47.7	10.0 44.7 61.5	19.9 44.7 61.5	16.4 44.4 97.2	10.0 10.0 10.0
Paints, Varnishes, and Lacquers (27)	8.72 4.68 2.91	5.63 2.30 0.85	11.15 7.04 2.23	16.02 7.77 2.83	3.98 2.86 1.95	5.68 3.76 1.76	22 33 37	7.5 5.2 3.5	12.5 20.5 34.5	12.5 19.3 38.6	31.3 53.9 91.8	31.3 65.7 91.8	30.7 57.7 98.1	10.0 10.0 10.0
Paper (123)	4.86 3.15 2.21	2.19 0.52 0.05†	8.57 2.51 0.21†	11.24 5.41 0.34†	6.68 5.05 3.28	9.17 6.04 4.54	28 34 39	14.2 7.5 5.1	4.1 9.5 21.0	21.2 85.0 62.8	58.7 75.7 107.5	48.6 75.7 94.5	43.4 73.4 115.3	11.6 25.1 39.3
Plumbing and Heating Supplies (108)	5.59 3.54 2.30	5.30 3.15 1.81	18.26 13.28 6.93	26.88 16.42 8.03	5.07 3.66 2.66	6.61 4.78 3.46	25 31 42	7.0 5.0 2.6	5.4 13.5 23.0	17.3 32.8 66.1	35.8 58.2 79.6	60.6 74.3 96.2	32.6 55.1 81.7	6.1 33.9 48.2
Shoes, Men's and Women's (35)	10.76 4.34 2.66	7.63 1.94 0.77†	22.28 9.14 8.82†	36.36 13.30 14.11†	9.13 4.56 3.32	7.53 5.91 4.59	41 53 66	8.5 7.7 4.1	0.7 3.0 51.9	10.1 19.7 51.9	11.0 33.5 92.6	43.3 63.5 92.6	21.5 48.0 66.4	10.0 10.0 10.0
Wines and Liquors (40)	3.74 1.93 1.56	3.52 1.83 0.46	18.50 11.52 3.61	25.09 13.81 4.26	8.98 6.21 4.43	11.99 7.70 5.99	17 38 52	14.2 7.5 5.4	3.2 11.0 23.4	29.9 66.6 126.3	54.8 119.1 179.6	61.0 81.5 141.9	57.6 94.4 148.7	15.8 24.7 77.5
Womenswear; Coats, Suits, and Dresses (28)	8.03 4.06 2.43	2.84 0.44 0.20†	13.23 2.32 0.11†	17.77 2.61 17.73†	7.72 4.56 3.55	11.29 6.26 4.76	30 39 48	24.2 15.6 11.1	1.8 3.7 13.0	15.7 31.7 64.7	15.7 31.7 64.7	15.7 31.3 47.3	67.0 114.3 220.6	10.0 10.0 10.0
WHOLESALE GROCERIES—1949—BY SIZE (TANGIBLE NET WORTH) CLASSES—MEDIAN ONLY														
Under \$200,000	3.70	0.68	7.28	8.37	7.51	9.43	14	10.1	11.0	32.4	61.3	89.3	45.1	22.4
\$200,000-\$500,000	3.13	0.73	5.54	7.43	7.53	9.70	16	8.8	18.1	40.7	81.0	102.7	45.5	19.3
Over \$500,000	3.55	1.09	7.53	8.38	6.46	8.65	17	9.9	15.0	33.3	62.5	96.3	41.3	24.0

* Loss. For another footnote and definitions of terms please turn to page 38.



FORD ROUGE RIVER PLANT, DEARBORN, MICHIGAN—REUTERS PHOTOGRAPH

PRODUCTION
PRICES
TRADE
FINANCE

General business activity was at a peacetime peak during August and the first half of September; many of the individual business indicators were at all-time high levels. Wholesale commodity prices rose steadily during the period. "Scare" buying abated considerably, but total retail volume was well above a year ago.

THE expansion of the nation's industrial output continued at a moderately accelerated pace during August and the first half of September. The basis for the expansion was the continued heavy demand by consumers for almost all types of products plus the possibility of shortages of certain types of materials later on as the preparedness program gathered momentum. Actual expenditures for military purposes were quite small during the period, in fact less than in the similar period a year ago.

Over-all industrial output, as measured by the Federal Reserve Board's Index of Physical Industrial Production, rose to a new post-war peak of 207 per cent of the 1935-1939 average, an increase of eleven points over the month of July (latest revisions).

Steel ingot production averaged close to 100 per cent of rated capacity during

August and early September. This operating rate meant a weekly output of approximately 1.9 million net tons and an annual production of slightly over 100 million net tons.

One of the largest consumers of steel, the automobile industry, maintained a weekly output of between 170,000 and 185,000 units, about 30 per cent higher than in the similar period a year ago.

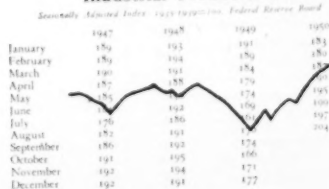
Production of refrigerators, washing machines, television sets, and other heavy appliances was very high but new orders, in some instances, were received in such large numbers that some manufacturers were forced to put dealers on an allotment basis.

Production of nondurables did not lag far behind the booming durable goods industries. Activity increased in the manufacture of textiles, chemicals, rubber, paper, and other soft goods.

Electric power production was at record levels during August, running about 15 per cent above the corresponding month in 1949.

The demand for lumber and other building materials and supplies was at a very high level during August as the construction industry set new records. The value of new construction put in place in August totalled \$2.7 billion, an all-time monthly high. Activity in private construction, which accounted for

Industrial Production



\$2 billion of the total, was centered on residential housing.

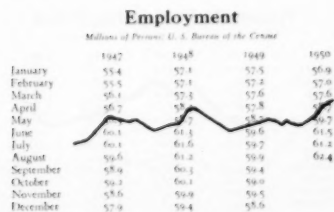
The expansion in industrial activity caused many business men to revise upwards their plans for capital expenditures. Latest estimates for plant and equipment expenditures in the second half of 1950 amounted to \$9.8 billion, compared with \$9.1 billion in the second half of 1949. Actual outlays in the first six months of 1950 totalled \$8 billion.

Employment More civilian workers were employed during August than at any other time in the history of the country. The August job level of 62.4 million persons was 1.2 million above that of the previous month, 2.5 million above a year ago, and 800,000 above the previous peak in July 1948. Unemployment dropped 22 per cent from July to August.

The manpower situation in August was affected to some extent by actual orders for war materials. Most of the rise in employment, however, was the result of increased output in those industries which expect civilian production to be curtailed by the defense program. There was no noticeable shortage of workers except in instances where special skills were needed. Often it was a case of certain types of workers being scarce in a particular area at a particular time.

Unemployment fell by 713,000 in August to 2.5 million persons. One significant aspect of the unemployment picture was the decrease in the number of persons out of work for four months or longer.

The civilian labor force in August



Compass Points

	Year	Mar.	Apr.	May	June	July	Aug.
Employment, total	1948	57.3	58.3	58.7	61.3	61.6	61.2
Million persons	1949	57.6	57.8	58.7	59.6	59.7	59.9
	1950	57.6	58.7	59.7	61.5	61.2	62.4
Unemployment	1948	2.4	2.2	1.8	2.2	2.2	1.9
Million persons	1949	3.2	3.0	3.3	3.8	4.1	3.7
	1950	4.1	3.5	3.1	3.4	3.2	2.5
Farm Income	1948	1.9	2.1	2.1	2.4	2.7	2.7
Billion dollars	1949	2.0	1.9	1.9	2.1	2.1	2.4
	1950	1.7	1.6	1.8	1.8	2.6	
Consumers' Credit Outstanding	1948	13.8	14.1	14.3	14.7	14.7	14.9
Billion dollars	1949	15.3	15.6	15.8	16.1	16.2	16.5
	1950	18.3	18.6	19.1	19.6	20.3	
Hourly Earnings of Industrial Workers	1948	1.31	1.31	1.32	1.34	1.36	1.37
Dollars	1949	1.40	1.40	1.40	1.41	1.41	1.40
	1950	1.42	1.43	1.44	1.45	1.46	1.46
Weekly Earnings of Industrial Workers	1948	52.92	52.56	52.83	53.87	53.97	55.06
Dollars	1949	54.74	53.80	54.08	54.51	54.63	54.70
	1950	56.53	56.93	57.72	58.89	59.02	60.28
Manufacturers' Sales	1948	18.8	18.6	18.6	19.4	19.0	19.7
Billion dollars	1949	18.5	17.6	17.7	18.0	17.1	18.9
	1950	19.1	18.5	20.7	21.2	21.6	
Manufacturers' Inventories	1948	30.7	31.0	31.5	32.2	32.6	32.8
Billion dollars	1949	34.2	34.0	33.6	33.2	32.4	31.6
	1950	31.1	31.2	31.5	32.0	31.8	
Wholesalers' Sales	1948	8.4	8.4	8.2	8.7	8.6	8.5
Billion dollars	1949	7.9	7.4	7.5	7.7	7.2	8.0
	1950	7.7	7.3	8.0	8.4	9.0	
Wholesalers' Inventories	1948	8.7	8.8	8.8	8.9	9.2	9.4
Billion dollars	1949	9.3	9.3	9.2	9.0	9.1	9.1
	1950	9.2	9.4	9.5	9.5	9.3	
Retailers' Sales	1948	10.8	11.0	10.6	10.9	10.9	11.0
Billion dollars	1949	10.7	10.8	10.8	10.7	10.5	10.7
	1950	11.1	11.1	11.3	11.7	12.5	12.5
Retailers' Inventories	1948	14.3	14.2	14.1	14.3	14.4	14.5
Billion dollars	1949	14.7	14.5	14.1	14.2	13.9	13.9
	1950	14.3	14.1	14.4	14.7	14.3	
Physical Production Index	1948	191	188	192	192	186	191
Adjusted 1935-1939=100	1949	184	179	174	169	161	170
	1950	187	190	195	199	196	207
Freight Carloadings	1948	3.0	3.0	4.4	3.5	4.2	3.6
Millions of cars	1949	3.3	3.1	3.1	3.6	3.4	2.9
	1950	3.4	2.9	3.0	3.9	3.0	4.2
Building Permits, 120 Cities	1948	264	286	279	298	275	296
Million dollars	1949	256	283	257	317	241	279
	1950	357	355	464	462	418	434
Commercial and Industrial Failures	1948	477	404	426	463	420	439
Number	1949	847	877	775	828	719	810
	1950	884	806	874	725	694	787
Liabilities of Failures	1948	17.5	15.3	13.8	12.2	13.9	21.4
Million dollars	1949	37.2	31.9	24.6	28.2	21.8	31.2
	1950	27.9	21.3	22.7	18.1	19.5	18.4

The figures above bring up-to-date some of the series included in "The Compass Points of Business" quarterly supplement to the August issue of DUN'S REVIEW. The next complete quarterly supplement will appear in the November issue of this magazine.

Weekly Signposts of Activity

WEEKLY AVERAGES 1939	1949	SELECTED BUSINESS INDICATORS	LATEST WEEK	PREVIOUS WEEK	YEAR AGO	WEEK ENDED
102	150	Steel Ingot Production Ten Thousand Tons	194	194	156	Sept. 30
76	82	Bituminous Coal Mined Hundred Thousand Tons	114	113	19	Sept. 23
69	120	Automobile Production Thousand Automobiles	177	176	151	Sept. 23
31	55	Electric Power Output Ten Million K.W. Hours	65	65	56	Sept. 23
65	69	Freight Carloadings Ten Thousand Cars	87	87	66	Sept. 23
109	285	Department Store Sales Index Number	321	367	292	Sept. 23
77	155	Wholesale Prices Index Number	170	169	154	Sept. 19
74	212	Bank Debits Hundred Million Dollars	301	251	234	Sept. 20
76	275	Money in Circulation Hundred Million Dollars	271	272	274	Sept. 23
219	178	Business Failures Number of Failures	155	165	169	Sept. 21

Sources: Amer. Iron & Steel Inst.; U. S. Bureau of Mines; Automotive News; Edison Electric Inst.; Amer. Assoc. of Railroads; Federal Reserve Board; U. S. Bureau of Labor Statistics; DUN & BRADSTREET, INC.

totalled 64.9 million persons, 96 per cent of whom were working.

Income Personal income in July, the latest date for which figures are available, was at an annual rate of \$219 billion as compared with \$217.1 billion in the previous month. The total for July was higher than for any other month on record, with the exception of March 1950 when disbursements of veterans' insurance refunds pushed personal income up to \$219.3 billion.

Wage and salary receipts increased slightly during July while income flowing to farm and nonfarm proprietors rose noticeably. Transfer payments declined, reflecting a drop in payments of National Service Life Insurance divi-

dends, State veterans' bonuses, and unemployment compensation.

Latest estimates of farm income for all of 1950 indicate that the expected decline from the 1949 level will be smaller than was previously anticipated. While cash receipts from farm marketings during the first half of 1950 were about 9 per cent under the corresponding period in 1949, they were slightly higher in July and August than they were a year ago. Although the possibility of noticeable changes in the price and demand situations make all estimates tentative, receipts in 1950 will be approximately 2 per cent below 1949.

Prices and Credit Wholesale commodity prices continued to climb steadily

during August and the first two weeks in September. Most price increases were not large percentage-wise, although the price level generally was well above a year ago. The DUN & BRADSTREET Daily Wholesale Price Index of 30 basic commodities (1930-1932=100) rose from 280.71 on August 1 to 286.01 on August 31; by September 15, the index had climbed to 290.53. The monthly wholesale price index of the U. S. Bureau of Labor Statistics (1926=100) rose in August to 166.3 from 162.9 in the previous month.

Prices at retail also advanced during August although the increases were not as widespread, centering mostly around those items the consumer demand for which was unusually heavy. In some instances industries which had granted wage increases were passing along the higher cost of manufacture to the consumer.

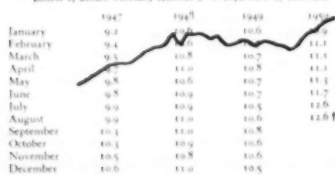
The Consumers' Price Index of the U. S. Bureau of Labor Statistics was estimated to be at 173 per cent of the 1935-1939 average in August, compared with 172.5 in July and 168.8 in August a year ago.

Along with the rise in retail sales following the outbreak of war in the Far East went a further increase in the amount of consumer credit outstanding. The latest data available is for July 31, at which time consumer credit outstanding amounted to a record-breaking \$20.3 billion, more than \$4 billion above the level at the end of July 1949. Installment credit, which accounted for \$12.6 billion of the total \$20.3 billion outstanding, was \$3.3 billion higher than on July 31, 1949.

In mid-September the Federal Reserve Board placed restrictions on the

Retail Sales

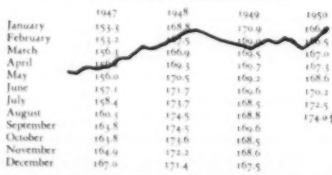
Billions of dollars; seasonally adjusted; U. S. Department of Commerce



† Approximation; figure from quoted source not available.

Consumers' Price Index

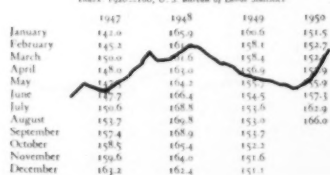
Index: 1913-1914=100; U. S. Bureau of Labor Statistics



† Approximation; figure from quoted source not available.

Wholesale Commodity Prices

Index: 1913-1914=100; U. S. Bureau of Labor Statistics



extension of consumer credit which included higher down payments and shorter loan periods for certain items.

Wholesaling Ordering for the approaching holiday season absorbed a steadily increasing share of aggregate buyer demand in the nation's wholesale marts during September. While there was a moderate consumer resistance to upward price revisions, the total volume of new orders moderately surpassed that of the same period in 1949.

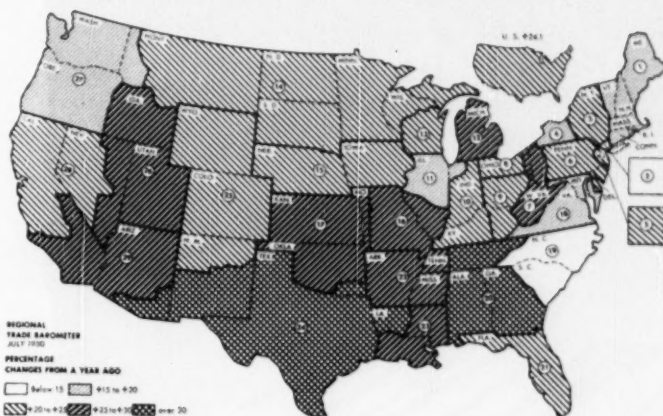
With Fall and Winter apparel stocks largely completed by mid-September, many purchasing agents began to concentrate more selectively on refill orders for such popularly selling lines as fur-trimmed coats and dresses suitable for cruise wear. Men's apparel orders exceeded a year ago.

Wholesale distributors of home furnishings and major appliances continued to register substantial sales increases above last year's comparative levels; some slackening of small appliance demand was evidenced.

Retailing Reimposition of consumer credit controls in the third week of September was reflected thereafter in slightly reduced purchases of some durables for which liberal credit allowances had been given. Nevertheless, aggregate retail spending topped that of a year ago by an ample margin.

Post-Labor Day promotions of Fall raiment moved many shoppers to augment their wardrobes. Coats and suits in both men's and women's lines were sold in larger volume than in either the preceding month or the same month of

Regional Trade Activity



REGIONAL TRADE BAROMETERS FOR 29 REGIONS
(1935-1939=100)

REGION:	July 1950	% Change from July 1949	July 1950	% Change from July 1949
1. United States.....	367.7	+24.1	+11.8	
2. New England.....	346.7	+19.1	+3.5	
3. New York City.....	295.1	+14.7	+2.8	
4. Albany, Utica, and Syracuse.....	305.1	+22.8	+3.5	
5. Buffalo and Rochester.....	299.8	+18.2	+5.8	
6. Northern New Jersey.....	245.1	+34.2	-0.4	
7. Philadelphia.....	318.9	+23.4	+0.9	
8. Pittsburgh.....	377.1	+37.0	+15.7	
9. Cleveland.....	385.6	+24.1	+17.6	
10. Cincinnati and Columbus.....	400.7	+34.5	+20.5	
11. Indianapolis and Louisville.....	408.0	+31.2	+13.1	
12. Chicago.....	320.1	+18.1	+15.0	
13. Detroit.....	412.5	+30.7	+12.0	
14. Milwaukee.....	377.1	+31.4	+8.9	
15. Minneapolis and St. Paul.....	351.0	+23.2	+8.5	
16. Iowa and Nebraska.....	359.9	+20.8	+9.1	
17. St. Louis.....	362.0	+27.1	+19.9	
18. Kansas City.....	401.9	+28.2	+11.3	
19. Maryland and Virginia.....	312.4	+15.1	+6.0	
20. North and South Carolina.....	362.8	+14.4	-4.1	
21. Atlanta and Birmingham.....	491.7	+39.4	+10.8	
22. Florida.....	454.4	+22.5	+15.9	
23. Memphis.....	431.6	+25.1	+5.0	
24. New Orleans.....	431.6	+28.8	+12.7	
25. Texas.....	525.8	+35.7	+31.9	
26. Denver.....	354.6	+31.2	+10.6	
27. Salt Lake City.....	343.7	+25.1	+1.8	
28. Portland and Seattle.....	385.1	+19.9	+11.8	
29. San Francisco.....	371.3	+23.7	+8.4	
30. Los Angeles.....	399.2	+29.9	+13.7	

THE LEVEL of consumer spending in the United States slipped perceptibly during August after allowing for seasonal variations. The preliminary DUN'S REVIEW Regional Trade Barometer for August was 360.4, or 2.0 per cent less than the level of the preceding month. Based on the 1935-1939 average, it exceeded the level of a year ago by 26.7 per cent. The barometer is also adjusted for the number of business days each month.

Establishing a new all-time record for the third consecutive month, the DUN'S REVIEW Regional Trade Barometer rose to 367.7 (final) in July. This exceeded the July 1949 barometer by 24.1 per cent and represented an increase of 11.8 per cent from June.

In all but two of the 29 regions barometers exceeded their June levels. The two decreases, occurring in the Northern New Jersey Region (5) and the North and South Carolina Region (19), amounted to 0.4 per cent and 4.1 per cent respectively.

Up most sharply from June were the Texas Region (24) with a rise of 21.9 per cent and the Cincinnati and Columbus Region with an increase of 20.5 per cent over the previous month.

As in June all the barometers for July were above their year-ago comparatives. Yearly increases ranged from a 14.4 per cent rise in the North and South Carolina Region (19) to a 35.7 per cent increment occurring in the Texas Region (24).

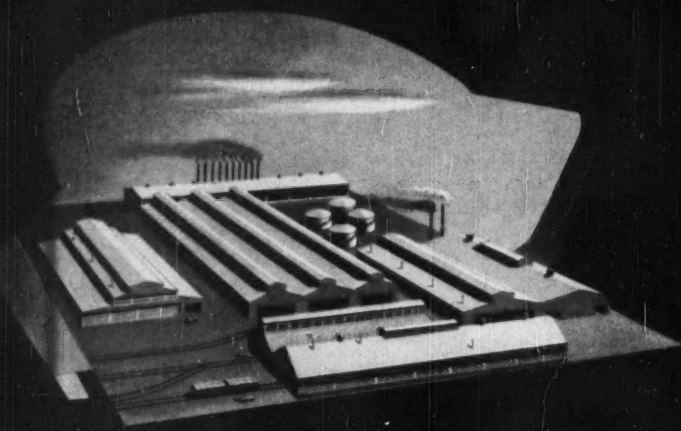
Industrial Stock Prices

Monthly Average of Daily Index, 1947-1950

	1947	1948	1949	1950
January	175.10	176.26	179.75	199.79
February	181.54	168.47	174.46	201.46
March	176.66	169.94	175.87	206.39
April	171.28	180.04	175.05	210.30
May	168.67	186.18	174.91	210.30
June	171.26	191.05	195.59	221.02
July	185.51	187.05	171.14	205.30
August	180.82	179.11	179.34	216.00
September	181.40	185.19	180.27	216.00
October	181.42	176.60	191.51	216.00
November	179.18	176.11	196.78	216.00

Based on closing prices of 30 industrial stocks.

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Your original investment is less with McCloskey function-engineered plants because the methods and designs developed by McCloskey engineers over a period of years eliminate many time-consuming operations. The use of our exclusive Rigidsteel* frame eliminates costly truss fabrication—gives you more headroom.

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McCloskey Company of Pittsburgh

last year. Back-to-school promotions elicited a sizable rise in the buying of children's wear.

The brisk consumer predilection for hard goods which highlighted last Summer's retail scene was largely sustained in early Fall. Uppermost in demand were automobiles and such appliances as washers and vacuum cleaners.

Failures Business failures increased 13 per cent in August to 787, but did not return to the high level of the first five months of this year. Although casualties continued below their comparable 1949 total for the third consecutive month, they exceeded any other August since 1941. Related to the number of concerns in business by DUN'S FAILURE INDEX which projects the monthly casualty rate to an annual basis and adjusts for seasonal fluctuation, the failure rate in August rose to 37 per 10,000 businesses in operation, the heaviest toll to date in 1950, but slightly below August a year ago. This rate was little more than one-half the pre-war rate of 71 recorded in 1940.

Although the number of casualties increased in August, their aggregate current liabilities dipped to \$18,448,000, reflecting a considerable decline in

BANK CLEARINGS
(Thousands of dollars)

	1950	August 1949	% Change
Total 24 Cities.....	43,532,040	39,345,180	+10.4
New York.....	12,007,000	8,715,000	+37.6
Total 25 Cities.....	60,500,000	53,000,250	+12.3
Average Daily.....	3,577,778	3,439,377	+39.4

NEW BUSINESS INCORPORATIONS

	July 1950	July 1949	Seven Months 1950	Seven Months 1949
New England.....	406	487	3,272	3,290
Middle Atlantic.....	2,424	2,115	20,724	17,145
East North Central.....	1,242	1,018	9,811	8,908
West North Central.....	882	807	6,014	5,747
South Atlantic.....	1,072	943	8,400	7,013
East South Central.....	722	607	5,808	4,620
West South Central.....	516	459	4,437	3,575
Mountain.....	208	252	2,257	1,802
Pacific.....	749	688	5,805	4,745

WHOLESALE FOOD PRICE INDEX

The index is the sum total of the price per pound of 31 foods in general use. It is not a cost-of-living index.

Latest Weeks	Year Ago	1950
Sept. 26, 50-64	Sept. 27, 49-54.67	High Aug. 29, 50-69
Sept. 19, 50-65	Sept. 20, 49-57.72	Low Jan. 4, 49-52
Sept. 12, 50-68	Sept. 13, 49-58.94	1949
Sept. 5, 50-69	Sept. 6, 49-58.82	High Jan. 4, 50-12
Aug. 29, 50-69	Aug. 30, 49-57.88	Low Oct. 11, 49-57

DAILY WHOLESALE PRICE INDEX

The index is prepared from spot closing prices of 40 basic commodities (from text=100).

Week Ending	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
Sept. 23, 50	200.47	200.88	200.27	200.70	200.92	200.97
Sept. 16, 50	200.08	200.17	200.92	200.47	200.53	200.34
Sept. 9, Holiday	190.08	190.64	195.14	195.50	195.86	195.86
Sept. 2, 50	200.45	200.30	200.90	200.01	200.52	200.57
Aug. 26, 50	201.40	201.34	201.96	201.12	201.51	201.12

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Old Package	384 lbs.
* New Package	36 lbs.
Weight Saving	48 lbs.

No. 7038

Gross Shipping Weight	120 lbs.
Old Package	104 lbs.
* New Package	16 lbs.
Weight Saving	16 lbs.

No. 7023

Gross Shipping Weight	39 lbs.
Old Package	34 lbs.
* New Package	5 lbs.
Weight Saving	5 lbs.

No. 7147

Gross Shipping Weight	95 lbs.
Old Package	83 lbs.
* New Package	12 lbs.
Weight Saving	12 lbs.

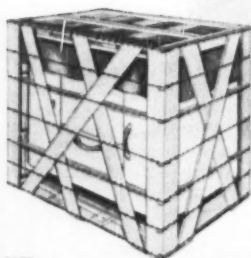
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large casualties both from the preceding month and the comparable month of 1949. Less than one-half as many failures involved liabilities of \$100,000 or more as last year.

Most of the increase between July and August centered among casualties having liabilities under \$25,000; this size group also had more failures than a year ago whereas all failures in excess of this amount showed a decline from the 1949 level.

Businesses in operation for five years or less accounted for a major portion of the month's failures. Of the 69 per cent in this age class, 43 per cent were enterprises begun in the 1946-1948 period while 26 per cent started in 1949 or 1950. Actually, only 5 per cent were initiated in this calendar year.

Mild increases took place in August in manufacturing, retailing, and construction. The construction rise occurred principally among subcontractors and about one-third were engaged in heating and plumbing operations. Manufacturing mortality increased in the food, textile, and lumber industries; in retailing, failures among food stores rose to 93, general merchandise to 22, apparel to 65, and eating and drinking places to 89, an eight-year peak. In fact, the only retail line having a decline from July was lumber and

BUILDING PERMIT VALUES—215 CITIES

Geographical Division	1950	August 1949	% Change
New England	\$14,649,026	\$18,501,131	+ 26.3
Middle Atlantic	94,451,711	75,053,692	- 20.0
South Atlantic	49,475,698	31,369,172	- 36.7
East Central	124,362,683	82,235,184	- 33.9
South Central	101,182,778	53,566,031	- 47.0
West Central	35,749,481	23,193,921	- 35.4
Mountain	19,413,134	7,619,760	- 60.8
Pacific	91,886,462	54,741,047	- 40.3
Total U. S.	\$500,997,073	\$347,499,808	- 30.0
N. Y. City	\$17,868,882	\$41,341,128	+ 131.3
Outside N. Y. C.	\$513,139,091	\$306,158,680	- 40.3

THE FAILURE RECORD

DUN'S FAILURE INDEX*	Aug. 1950	July 1950	Aug. P. C. 1949 Chg.†
Unadjusted	32.7	31.2	33.5 - 2
Adjusted, seasonally	37.2	33.5	38.1 - 2
NUMBER OF FAILURES	287	694	810 - 3
NUMBER BY SIZE OF DEBT			
Under \$5,000	177	140	162 + 9
\$5,000-\$25,000	427	363	494 + 6
\$25,000-\$100,000	161	159	185 + 13
\$100,000 and over	22	32	58 - 62
NUMBER BY INDUSTRY GROUPS			
Manufacturing	173	151	221 - 22
Wholesale Trade	70	73	96 - 27
Retail Trade	402	343	389 + 4
Construction	91	66	55 + 36
Commercial Service	51	62	53 - 2
(Liabilities in thousands)			
CURRENT	\$18,448	\$19,538	\$33,175 - 41
TOTAL	18,717	19,538	31,730 - 41

* Apparent annual failures per 10,000 enterprises, formerly called Dun's Insolvency Index.
† Per cent change of August 1950 from August 1949.

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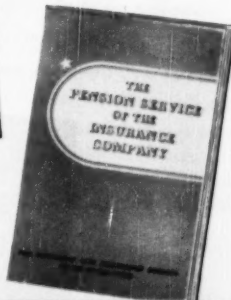
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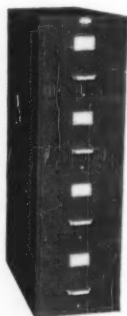
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building materials down 30 per cent.


In comparison with 1949, mortality in retailing rose 4 per cent and in construction 65 per cent. The construction upswing occurred entirely in subcontracting. A moderate increase prevailed in most retail lines, more than offsetting slight declines in the lumber and automotive trades. Contrary to the increase from last year in construction and retailing, manufacturing and wholesaling failures fell off considerably, 22 and 27 per cent respectively, while commercial service dipped 4 per cent. The manufacturing decline was notable in iron and steel and machinery and the wholesaling decrease in lumber and building materials.

Six of the nine major geographic regions reported a larger number of businesses failing in August than in July. In the Middle Atlantic States, casualties climbed to 276, principally in New York, which had 221, its largest total since 1942; in the Pacific States, they rose to 187, with 158 in California. On the other hand, failures in the East North Central States decreased to 120, that area's lowest mortality this year.

FAILURES BY DIVISIONS OF INDUSTRY

(Current liabilities in thousands of dollars)	Number (Jan.-Aug.) 1950 1949	Liabilities (Jan.-Aug.) 1950 1949
MINING, MANUFACTURING...	1,484 1,856	69,826 106,105
Mining—Coal, Oil, Misc....	17 45	2,039 5,803
Food and Kindred Products	181 182	11,679 15,710
Textile, Products, Apparel...	392 215	10,548 12,169
Lumber, Lumber Products...	231 252	7,837 14,449
Paper, Printing, Publishing...	81 97	4,549 4,630
Chemicals, Allied Products...	35 48	4,801 1,755
Leather, Leather Products...	72 61	2,179 2,412
Stone, Clay, Glass Products...	42 37	2,119 2,058
Iron, Steel, and Products...	54 109	4,040 8,516
Machinery	158 191	7,722 10,596
Transportation Equipment...	48 60	1,410 5,786
Miscellaneous	265 273	8,604 13,573
WHOLESALE TRADE.....	733	26,116 31,535
Food and Farm Products...	198 207	8,551 9,437
Apparel	30 41	1,068 1,852
Dry Goods	14 20	898 516
Lumber, Bldg. Mats., Hdw.	78 27	3,715 4,037
Chemicals and Drugs	27 36	635 1,261
Motor Vehicles, Equipment...	52 47	1,368 1,574
Miscellaneous	359 304	10,381 12,875
RETAIL TRADE.....	3,146 2,809	55,519 48,298
Food and Liquor	540 599	7,044 7,405
General Merchandise	164 112	4,111 3,414
Apparel and Accessories	530 491	6,572 5,640
Furniture, Furnishings	330 334	7,107 6,801
Lumber, Bldg. Mats., Hdw.	130 180	3,864 3,530
Automotive Group	891 870	5,954 5,554
Eating, Drinking Places	582 508	10,508 10,870
Drug Stores	80 73	1,209 1,445
Miscellaneous	317 316	4,870 4,890
CONSTRUCTION	597 514	14,464 16,932
General Bldg. Contractors...	184 209	5,575 10,286
Building Sub-contractors...	386 282	7,730 4,600
Other Contractors	27 23	1,159 2,046
COMMERCIAL SERVICE	409 483	12,847 18,677
Air and Highway Transportation...	114 157	3,367 8,170
Misc. Public Services	23 12	755 4,735
Hotels	23 20	1,666 820
Cleaning, Dyeing, Repairs...	66 67	736 1,140
Laundries	32 30	702 853
Undertakers	9 6	179 106
Other Personal Services	40 40	497 524
Business, Repair Service...	184 151	4,945 2,361

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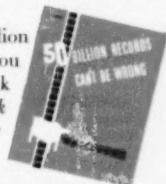
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The Business Bookshelf

HISTORY OF ECONOMIC THOUGHT, by Lewis H. Haney. Macmillan, 996 pages, \$5.
ECONOMIC IDEAS, by Ferdinand Zweig. Prentice-Hall, 197 pages, \$3.65.
TWENTIETH CENTURY ECONOMIC THOUGHT, by Glenn Hoover. Philosophical Library, 819 pages, \$12.

"IDEAS ARE weapons," wrote a student of politics a few years ago. That this astute observation applies equally to the field of economics is the contention of three currently released books; each, in its own way, demonstrates how our economic institutions are being constantly shaped and reshaped by the eternal struggle for the minds of men. Together, they offer a back-stage glimpse into the contending ideologies that form the vortex of these troubled times.

Mr. Haney's excellent history provides a sweeping—and often thrilling—panorama of economic doctrines from the beginnings of trade and commerce to the present day; a chronological sequence of beliefs and their consequences is unfolded between its covers, starting with primitive and Greek examples and continuing through the mercantile and classical periods down through our own era of finance capitalism.

The present volume is the fourth edition of a work first published in

1911; it has been considerably enlarged by the inclusion of Keynes' contributions, business cycle theory, and other innovations. Its wide scope and facile style make of this book a natural backdrop for the more specialized studies that follow.

Economic Ideas, subtitled "A study in Historical Perspective," is likewise an account of beliefs and doctrines, but one in which chronological sequence is sacrificed in order to stress just those developments leading to the dominant economic patterns of the West. Thus the teachings of Aquinas, of Adam Smith, and of Marx are traced through to their respective flowerings in scholastic economics, *laissez-faire* liberalism, and socialism.

Zweig makes much of the belief that all economic theories, good or evil, are valid only if they meet the test of successful application; success, he claims, depends upon the chance meeting of the proper theory with the proper set of historic conditions.

In *Twentieth Century Economic Thought* the selection is narrowed down still further to include only those concepts having a bearing on contemporary business and economic practices. Each viewpoint, presented by its outstanding exponent, joins battle with the

rest; out of the fray will perhaps emerge the theoretical basis for the trade and industry of to-morrow.

STRATEGY IN POKER, BUSINESS AND WAR, by John McDonald. Illustrated by Robert Osborn. W. W. Norton & Co., 128 pages, \$2.50.

Here is one of the greatest little books of our time. And that is because it is a popular version of a great big book, *The Theory of Games and Economic Behavior*, by mathematician John von



DRAWING BY ROBERT OSBORN

Neumann and economist Oskar Morgenstern (Princeton University Press). The great big book is wonderfully readable, witty, and profound at the same time. No poker-player, business man, or soldier ought to be without it, as a manual on strategy in his occupation.

Both books, the big and the little, are about strategy. Strategizing, whether at poker, business, or war, is maneuvering to win. But, according to the theory of games, the way to win is not to try to win too much. The goal to shoot for is called "minimax"—the highest minimum and lowest maximum. Mr. McDonald assumes that what a business man will want is not a big kill, but to "guarantee himself a certain minimum return regardless of the . . . action" of others. As with the poker-player, "In declining the best possible outcome, he likewise avoids the worst possible outcome."

But good strategy is more than simply settling for less than the most; according to the theory of games, it also in-

CURRENT READING

BOOK	SUMMARY
BERNARD BARUCH: <i>Portrait of a Citizen</i> , by W. L. White. Harcourt, Brace and Co., 158 pages, \$2.	This breezy panegyric by the author of <i>They Were Expendable</i> is rich in anecdotes, most of them unfamiliar, of the "Elder Statesman's" exploits in war and peace.
A GUIDE TO PROFITABLE INVESTMENT, by Harold B. Gruver. E. P. Dutton & Co., 118 pages, \$2.	A respected securities analyst presents here some basic rules for the intelligent handling of stock transactions, rules which de-emphasize the get-rich-quick approach.
SALES EXECUTIVES' HANDBOOK, ed. Harry Simmons. Prentice-Hall, 790 pages, \$10.	Informative, well-illustrated essays by twenty leading sales specialists run the gamut from the newest organizational methods to ultra-modern marketing techniques.
ADVERTISING HANDBOOK, ed. Roger Barton. Prentice-Hall, 1,015 pages, \$10.	Everything from classified ads to billboards are thoroughly covered in this kaleidoscopic tome; as in its companion work, contributors are outstanding specialists.
HOW TO PICK LEADERS, by G. L. Freeman and E. K. Taylor. Funk & Wagnalls, 226 pages, \$3.50.	An appeal by two experts in personnel research for the scientific "prior-selection" of candidates for executive leadership.
PRESENTING TECHNICAL PAPERS, by the staff of The Industrial Publicity Association, 42 pages (paperbound), \$2.50.	For those interested in adapting their promotional needs to the public platform, this unusual publication lists procedures by which non-members can address meetings of technical societies and similar organizations.

cludes knowing when and with whom to form a coalition, and—above all—when and how to bluff. The bluff, the apparent absence of all strategy, must not be patterned, however. Patterning negates the value of the bluff, the purpose of which is the denial of information to others. Good strategy needs "occasional irregularly distributed bluffs."

This is not to say that the best strategy is no strategy. It means, rather, that strategy should employ the irrational as well as the rational factors that pervade the card-table, the market, and the battlefield.

The theory of games is perhaps one of the most significant scientific concepts to reach out into the practise of finance in this century. The importance of McDonald's book lies in its ability to meet that concept on a level other than the mathematical.

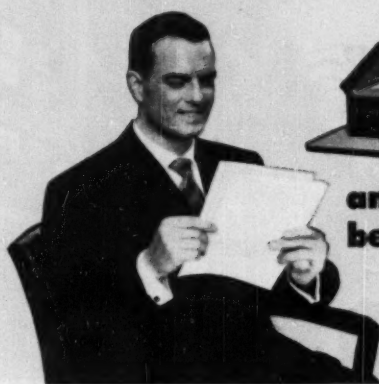
PUBLIC FINANCE AND FISCAL POLICY, by Richard W. Lindholm, Putnam Publishing Corp., 732 pages, \$5.50.

In this age of increasing interaction between the areas of business and government, Mr. Lindholm's book performs a timely service. Virtually every ramification of federal, state, and municipal financing is laid bare in this comprehensive study; the result proves above all that our fiscal officialdom, far from being an impersonal colossus, operates under much the same pressures and conditions as do the agencies of private finance.

While the book is chiefly concerned with the dual considerations of public collection and expenditure, it contains much material of relevance for business men. In a section entitled "Natural-Resource and Related Expenditures" are to be found a discussion of the government's rôle in the development of atomic power for industrial and other uses; also discussed in this section is the probable effect on industry's future of growing federal control of transportation and communication.

Taxation, of particular concern to those in business, comprises the subject-matter of four entire sections; the relationship between taxes on income, property, and profit is examined within the context of the current national economy. Yet another section contains some new material on the break-down of the national debt.

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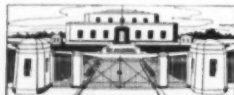
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RATIOS

(Continued from page 22)

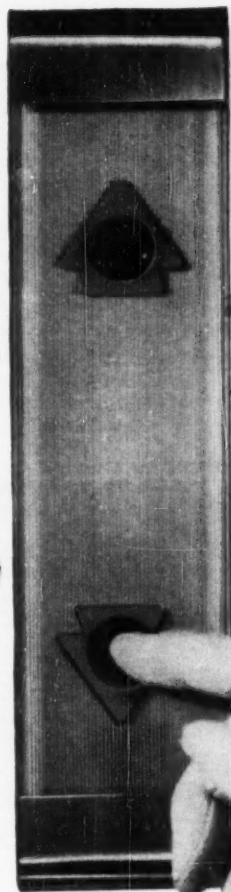
particularly for wholesalers of automobile parts and accessories, butter, eggs and cheese, electrical parts and supplies, fresh fruits and produce, men's furnishings, gasoline and lubricating oil, paints, varnishes and lacquers, plumbing and heating supplies, and women's wear. Only among wholesalers of automobile tires and tubes, drugs and drug sundries, groceries, hardware, and wines and liquors, was the median for inventory to net working capital above 80 per cent.

The manner in which control over inventories in 1949 contributed to generally favorable debt alignments is indicated by the relationships of current assets to current debt, current debt to tangible net worth, and total debt to tangible net worth. The median relationship between current assets and current debt increased in 18 of the 24 wholesale lines, principally among wholesalers of automobile parts and accessories, fresh fruits and produce, hardware, paints, varnishes and lacquers, and women's wear.

Major declines in the current ratio occurred only among wholesalers of hosiery and underwear, and knitted outerwear. The medians for current liabilities to tangible net worth were lower for 1949 than for 1948 in 18 lines. Current debt was below 50 per cent of tangible net worth in all lines except cigars and tobacco, (53 per cent) and wines and liquors (67 per cent).

Median total debt to tangible net worth exceeded 80 per cent only among wholesalers of cigars, cigarettes and tobacco, drugs and drug sundries, paper, and wines and liquors. Total debt to tangible net worth fell 48 per cent among wholesalers of gasoline and lubricating oils, 18.5 per cent for wholesale grocers, and 73 per cent among wholesalers of wines and liquors. Major rises in the median of total liabilities to tangible net worth were reflected, however, for wholesalers of drugs and drug sundries, hardware, lumber, meat and poultry, and paper.

Also contributing toward generally favorable debt alignments were satisfactory rates of net profits on tangible net worth, the medians for which exceeded 7 per cent in 16 of the 24 lines



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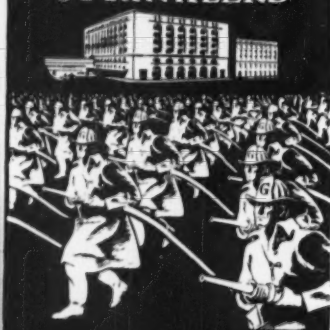
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and 10 per cent in 7 wholesale lines. Yet median net profits on tangible net worth were below a previous five-year average in all lines studied, and closer to the breakeven point than in 1948.

The median for net profits on net sales fell in 19 wholesale lines. Median net profits on net sales were less than 2 per cent in 15 lines, and below 1 per cent in 8 lines. The median was very low for wholesalers of butter, eggs and cheese, groceries, paper, and women's wear. Operating losses were reflected by lower quartile figures in five lines, highest in recent years.

DEFINITIONS OF TERMS FOR TABLE ON PAGE 23

* Computed only for those lines of business in which a reasonable number of concerns had outstanding long-term liabilities.

The fourteen ratios for the past five years in manufacturing, wholesaling, and retailing will be available early in 1951 in a pamphlet by Roy A. Foulke, Vice-President, ITC & BRADSHAW, INC.

THE RATIOS—The data used are based upon a representative sampling with a tangible net worth which only occasionally is below \$50,000. . . . The center figure for each ratio (in darker type) is the median. The other two figures (in italics) are quartiles, for each ratio they indicate the upper and lower limits of the experiences of that half of the concerns whose ratios are nearest to the median. When any figures are listed in order according to their size, the median is the middle figure (same number of items from the top and the bottom) and the quartiles are the figures one-quarter and three-quarters down the list.

REPORTING CONCERNS—The number in parentheses after the name of the line of business is the number of concerns for which data were available.

COLLECTION PERIOD—The number of days that the total of trade accounts and notes receivable (including assigned accounts and discounted notes, if any) less reserves for bad debts, represents when compared with the annual net credit rules. Formula—divide the annual net credit sales by 365 days to obtain the average credit sales per day. Then divide the total of accounts and notes receivable (plus any discounted notes receivable) by the average credit sales per day to obtain the average collection period.

CURRENT ASSETS—Total of cash, accounts and notes receivable for the sale of merchandise in regular trade quarters less any reserves for bad debts, advances on merchandise, inventory less any reserves, listed securities when not in excess of market, State and municipal bonds not in excess of market, and United States Government securities.

CURRENT DEBT—Total of all liabilities due within one year from statement date including current payments on serial notes, mortgages, debentures, or other funded debts. This item also includes current reserves such as gross reserves for Federal income and excess profits taxes, reserves for contingencies set up for specific purposes, but does not include reserves for depreciation.

FIXED ASSETS—The sum of the cost value of land and the depreciated book values of buildings, leasehold improvements, fixtures, furniture, machinery, tools, and equipment.

FUNDING DEBT—Mortgages, bonds, debentures, gold notes, serial notes, or other obligations with maturity of more than one year from the statement date.

INVENTORY—The sum of raw material, material in process, and finished merchandise. It does not include supplies.

NET PROFITS—Profit after full depreciation on buildings, machinery, equipment, furniture, and other assets of a fixed nature; after reserves for Federal income and excess profit taxes after reduction in the value of inventory to cost or market, whichever is lower; after charge-offs for bad debts; after all miscellaneous reserves and adjustments; but before dividends or withdrawals.

NET SALES—The dollar volume of business transacted for 365 days net after deductions for returns, allowances, and discounts from gross sales.

NET SALES TO INVENTORY—The quotient obtained by dividing the annual net sales by the statement inventory. This quotient does not represent the actual physical turnover which would be determined by reducing the annual net sales to the cost of goods sold, and then dividing the resulting figure by the statement inventory.

NET WORKING CAPITAL—The excess of the current assets over the current debt.

TANGIBLE NET WORTH—The sum of all outstanding preferred or preference stocks (if any) and outstanding common stocks, surplus, and undivided profits, less any intangible items in the assets, such as goodwill, trade marks, patents, copyrights, leaseholds, mailing lists, treasury stock, organization expenses, and underwriting discounts and expenses.

TURNOVER OF TANGIBLE NET WORTH—The quotient obtained by dividing annual net sales by tangible net worth.

TURNOVER OF NET WORKING CAPITAL—The quotient obtained by dividing annual net sales by net working capital.

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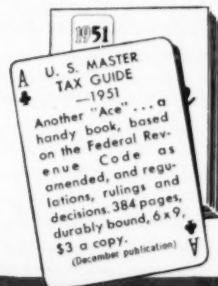
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MARKETING

(Continued from page 15)

Curtis Publishing Company, once said this about product quality: "There is one thing advertising will not do—it will not build a permanent market for an inferior product. The more a manufacturer advertises unworthy merchandise the more quickly he brings about the dissolution of his business."

Then, to illustrate his point, Parlin told a fable about a baker who baked very bad pies. He couldn't sell his bad pies, so he decided to advertise them as good pies. Advertise them he did, and the next day he looked down the street to see a large group of people coming to buy his pies. Quickly he ran in his shop, closed the door, and hung a sign on it reading, "All sold out." "Are you mad?" asked his wife. "Don't you want to sell your pies?" "Listen," replied the baker, "if all those people find out how bad my pies are, I'm ruined."

The fourth principle is: Give the public good service. And when I say good service I mean efficient service that cares promptly for all the customers' wants. I do not mean unnecessary, luxurious, or ostentatious service that might give the customer the impression that profits must be excessive and so he is probably being overcharged.

Fifth. Protect your market from your competitors by the vigor with which you compete. For if the day ever arrives when you seek to protect your market through "gentlemen's agreements" or through appeals to some legislative body, you can count yourself already on the way out. You'll not find lasting protection in either of these devices, because it is axiomatic that if it pays to do a thing, someone will find a way to do it. If it pays to conduct a price war against you, someone will do it, and the only way you can stop it will be to make it unprofitable for that competitor to continue.

I represent a company which has always strongly favored competition and has resisted every hint of collusion, price fixing, and unwarranted regulations and restrictions, regardless of the source from which they emanated. I remember back in the early 1930's when some other oil companies wanted to crawl under the sheltering wing of the



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Price Fixing and the NRA

My feeling is that if you favor free enterprise and the free market, you are against all forms of control. I do not have much time for the so-called free enterpriser who wants to be left alone himself but thinks everyone else should be regulated by law.

As the sixth principle, watch your competitor's quality and price structure closely. Remember that maintaining one's sales position is like driving a car on a slippery pavement. If you react quickly, a skid amounts to nothing, but if you let it get under way, you may lose complete control. Remember, too, that the fellow who is taking away your business is automatically decreasing his costs, and by the same token, is thereby increasing your costs.

Seventh. Decentralize your organization by giving your sales managers full authority over small sales areas. Broken down, this principle means that you should do three things: first, keep your sales districts and regions of such size that the responsible managers can know their territories intimately; second, within reasonable limits give your regional managers the authority to handle their areas in their own way; and third, make them individually responsible for the results of their work.

We follow this principle at Sun. Each of our regional sales managers operates very much like the president of his own company. Of course, he meets with Sun's vice-president in charge of marketing and with his fellow regional managers to learn what

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It has been my observation, as Woodrow Wilson once put it, that "... a big business is a business that has survived competition by conquering in the field of intelligence and economy."

Incidentally, Wilson then said that he was for big business, because, to quote his words: "Any man who can survive by his brains, any man who can put the others out of business by making the thing cheaper to the consumer at the same time that he is increasing its intrinsic value and quality, I take my hat off to, and I say, you are the man who can build up the United States, and I wish there were more of you."

The eighth principle is: Never allow controversies to drift indefinitely, hoping that they will be forgotten or will solve themselves. Too often untended controversies become centers of infection, spreading discontent and unhappiness far beyond their actual importance. Delays to develop further information or to allow the conflicting factions to cool down are always justi-

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fied, but beyond this, never avoid meeting situations squarely.

And last: Always be ethical in your business operations. Play square with your customers, your competitors, and above all, with your employees. And when I speak of ethics I am not talking about staying just within the limits of the law.

Sometimes a business man who cuts his prices to consumers is called by his competitors "unethical." I'm not talking about that kind of ethics, either. If a competitor of mine cuts a price, I might call him foolhardy, or, if he has a temporary advantage over me, I might call him shrewd, but I would never call him unethical.

Business Ethics

The concept of ethics requires that one stand back of their word once they've given it, that they never misrepresent their product or their services, and that they never violate a trust or a confidence. The words "play square" sum it up, and the habit of playing square will pay tremendous dividends.

If I had been called upon to make a summary of this nature fifteen or twenty years ago, I probably would have added another principle—one which I have since rejected as being unwise. That principle was to observe the adage, "The less you say, the less you have to take back." During my years as a sales executive I have followed that adage, and consequently I have seldom appeared on a speakers' rostrum.

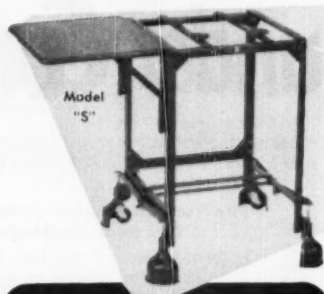
I fear, however, that such reticence on the part of most business men to tell their problems to the public has been responsible for the public's failure to appreciate the great benefits that the competitive enterprise system has produced. This reticence has been a mistake. I now believe that business men should talk openly and frankly about the things that are on their minds and in their hearts. They should talk about their business, telling all who will listen what they have done, what they are doing, and what they intend to do. I think they should talk particularly about their objectives, and so I would like to say a few words about the objectives of good marketing practise.

Briefly, the objectives of a marketing organization are three in number:

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The first is to best serve the interests of the consuming public. Remember the consumer is king. The consumer must be served above all else or all is lost.

In order to best serve the interests of the public and thus carry out our first objective, we must market the highest quality products we can provide at the lowest price commensurate with this quality. We must make the products available at points easily accessible to the public. We must deliver those products in an efficient, convenient package or manner. And we must take the responsibility of educating the customer as to the products or services that best meet his needs.

The second objective of good marketing practise is to best serve the interests of our employees. Parlin, as a study of his work demonstrates, appreciated the importance of developing a strong, loyal, and enthusiastic organization. In listing the factors that bring about sales success, he placed this consideration second only to having a good product.

The Attitude Toward Employees

How do employers best serve the interests of employees and thus reap the reward that comes from having a strong organization? These are some of the ways: Treat the employee fairly and generously. Give him adequate pay for services rendered. Provide him with healthful and comfortable working conditions. Give him opportunity for advancement and modern tools so he can do an efficient job. And establish a procedure through which he can state grievances, if any should arise.

But these things, by themselves, are not enough. We must apply ourselves to the task of seeing not only that the employee understands what to do but why he is doing it. He should know, for example, that increased earnings are justified only by increased output. He should understand that improved machinery helps him become more efficient, thus increasing his earning power. And he should appreciate that tools and mechanical devices are placed at his disposal by stockholders, who are entitled to a reasonable return for performing this essential function. These are things the employee should understand if we are to expect his full co-

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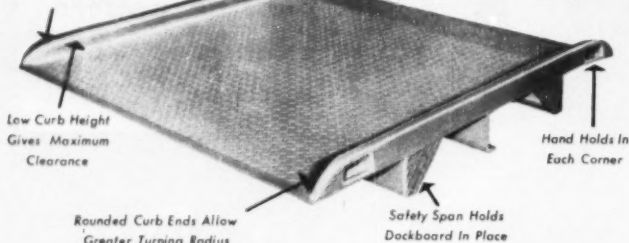
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operation. It is our job to see that he does.

The third objective of good marketing practise is to best serve the stockholders' interests. We can do that by earning profits with which to compensate him for his investment, because unless he makes his investment first, neither the public nor the employee can be served.

The Stockholders' Interest

It is my experience that the stockholder seldom demands the last pound of flesh in the form of profits, but rather is interested in a reasonable return on his investment, coupled with an ever more promising future. He takes pride in the success of the venture with which he is associated. He understands—as the public should learn—that his willingness to continue to supply the funds required to purchase the newest and most efficient equipment is essential not only to the continuation of our high standard of living, but to the preservation of our free economy.

These I consider the major objectives of a good marketing organization—to best serve the interests of the public, employees, and stockholders. In my own company, they represent the basic philosophy against which every proposed policy is tested.

As I look back upon my 35 or more years as a marketing executive of Sun Oil Company, I am impressed with the fact that since the very beginning these fundamentals on which our marketing policies were founded have never changed. The tools we have used in attaining these ends have varied; the approaches have been through different roads; all manner of vehicles have been used; but the highways leading to permanent success are always built on these same foundations. I think we business men should do more talking about them, and we should learn to talk as fluently and persuasively as possible.

The critics of our business organizations, the New Dealers, Fair Dealers, and collectivists of different breeds, all seem to have the silver tongues of tempting Satans. They have led the American people up a high mountain of debt, from whence they point to their baseless promises of great social benefits and say that if people will but

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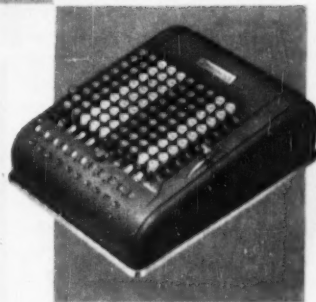
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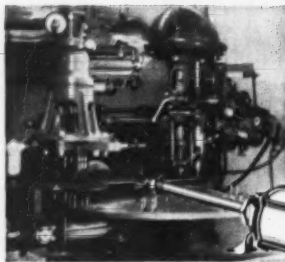
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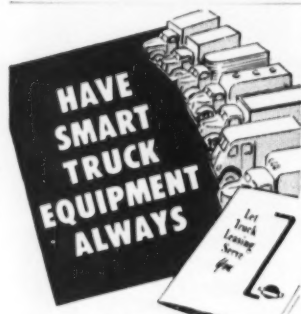
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worship such false ideology, all this will be theirs.

Our reply should be: "Get thee behind us!" And we must make that reply heard at every village meeting hall, crossroads, and market place in the country. We have talked to ourselves too long. Now we must carry our message to the people who make up the great American public.

And who are these people? They are our customers! They are the very people we contact every day in the course of our business. That is why those engaged in marketing should be particularly eager to accept the challenge offered by the collectivists, for theirs is the branch of business that deals directly with customers. Clearly, the responsibility is theirs to explain, among other things, that the Government can only give to the people that which it takes away from them in the present or borrows against their future.

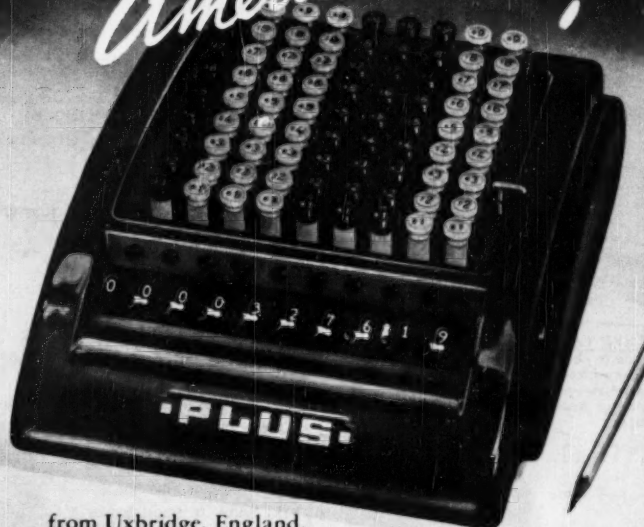
Competition and Business

In putting across the ideals and philosophy of the competitive, private business system, we can draw on a considerable backlog of experience in dealing with the American people. We have already earned their esteem for the quality of our products, and we have established faith in the integrity of our firms. Our salesmen are no longer looked upon as fast-talking drummers, but are considered trusted advisers by their customers.

Now we must translate that esteem for our products and faith in our integrity into confidence in the business system itself. For when Parlin said we must win the confidence of the consumer, he was absolutely correct. Today we should understand his words to mean that the consumer must have confidence not only in our products but also in the business system which creates those products. When we view his words in that light they take on new and increased significance, and so I would like to repeat them:

"We may talk as long as we please about manufacturers, wholesalers, and retailers. But in the last analysis, the consumer is king. The decision of the consumer makes and unmakes manufacturers, jobbers, and retailers. Whoever wins the confidence of the consumer, wins the day . . ."

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BUSINESS CYCLE

(Continued from page 18)

tuations of one business activity during an extended time); this included a careful screening out of the less likely candidates.

Among the criteria of selection were smoothness of fluctuation, relative conformance to general business activity, and the availability of statistical data over many years. The selection process was rendered more difficult by the discovery that not only does practically every series undergo a pronounced cyclic development—the few exceptions being extremely stable activities like rail commutation traffic and "fixed" prices—but many expand and contract with a fairly similar degree of consistency. Another hardship encountered was that the statistical material for some series had to be obtained from several sources, and that most series had to be adjusted for seasonal variations.

Although no series was found to meet every qualification, the list was eventually "filtered down" to 71; of these a tentative precipitate of the 21 most sensitive series was finally culled.

One important finding, already mentioned, was that the fluctuations of certain indicators tend to lead the tide of aggregate business activities. Now, of the 21 statistical indicators selected, eight fell into this category; they were labeled the *Leading Group*. Eight more indicator-series appeared to coincide with the aggregate flow; these were called the *Roughly Coincident Group*. The remaining five were referred to as the *Lagging Group*. Since the movements of these 21 highly-selective indicators reflect, to a far greater degree than the average, a systematic sequence of events, they are much more likely to behave in accordance with their respective groupings.

LEADING GROUP

1. Total liabilities of industrial and commercial business failures
2. Industrial common stock price index

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3. New orders, 'durable goods' industries

4. Residential building contracts, floor space

5. Commercial and industrial building contracts, floor space

6. Average hours worked per week in manufacturing

7. Number of new incorporations

8. Wholesale price index (28 basic commodities)

ROUGHLY COINCIDENT GROUP

9. Employment in non-agricultural establishments

10. Unemployment

11. Corporate profits (quarterly figures)

12. Bank debits outside New York City

13. Freight carloadings

14. Industrial production index

15. Gross national product (quarterly figures)

16. Wholesale price index (exclusive of farm products and foods)

LAGGING GROUP

17. Personal income

18. Sales by retail stores

19. Consumer installment credit

20. Bank rates on business loans (quarterly figures)

21. Manufacturers' inventories (in current prices)

SOURCES: Nos. 1 and 7: *Dun & Bradstreet, Inc.*; No. 2: *Dow-Jones & Co.*; Nos. 3, 10, 11, 15, 17, 18, and 21: *U. S. Department of Commerce*; Nos. 4 and 5: *F. W. Dodge Corp.*; Nos. 6, 8, 9, and 16: *U. S. Bureau of Labor Statistics*; Nos. 12, 14, 19, and 20: *Federal Reserve Board*; No. 13: *Association of American Railroads*.

The Clustering Tendency

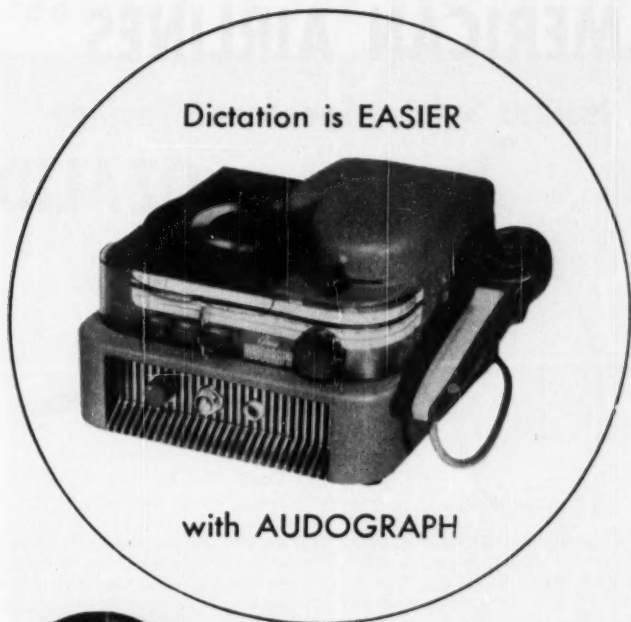
Previously it had often been noted that when fluctuations of diverse business activities over a number of years were superimposed on the same graph, the high points and low points of the fluctuations tended to bunch, or *cluster*, a fact which helped confirm the significance of their relationship to the business cycle. With the substitution of the more sensitive selected indicators, the high and low points—termed *peaks* and *troughs*—are more inclined to cluster in a well-delineated manner.

As in the graph of the eight leading series on page 18, there is a readily-discernible regularity in the positions of the peaks and troughs. Although individual series differ widely in regard to brief "saw-tooth"

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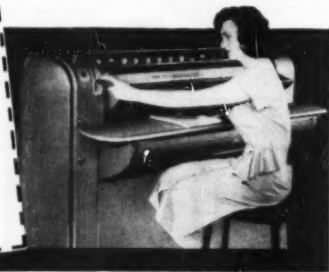
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movements, the broader swings reveal a workable concomitance.

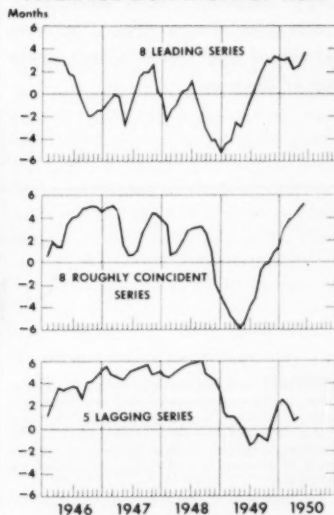
During the course of experimenting with the forecasting capacities of the clustering tendency, the research staff early encountered a major trouble-spot; since peaks and troughs occur over different time-intervals with each series, even the selected indicators would occasionally exhibit erratic cyclic movements under certain market conditions. This problem is being tackled with so-called *smoothing* procedures; moving averages of the varying time-intervals for each series are compiled in such a way as to reduce all movements to the same scale.

A Composite Series

Another project relating to the cluster phenomenon that is being worked upon is an attempt to chart a composite derived from a collection of series that would successfully anticipate the formation of peaks and troughs. For this purpose a curve has been devised called the *average duration of run*. This curve is so constructed that it will begin to decline at the point where a cluster of peaks starts to form, and will continue to decline until a cluster of troughs begins to form (see accompanying chart). As is quite apparent, this curve corresponds to the "unseen" cycle of Dr. Burns, and is but a way of measuring it.

The fluctuations of the *average duration*

AVERAGE DURATION OF RUN



tion of run curve, when applied to past business cycles, have a startling record of accuracy. While the National Bureau has indicated that there still has to be a lot more refining of the process of selecting indicators, and much more research into the best methods of using them, it appears that these newly-fashioned tools can appreciably aid in determining whether we are in an actual period of recession or recovery, or simply experiencing a dip or rise of minor proportions.

Comparisons of key series, one with the other, as well as the checking of one entire group against another, are already capable of examining the magnitude and amplitude of present-day business fluctuations. The sequence of changes in the 1948-1949 recession were adequately reflected by these means.

These, then, are some of the up-to-the-minute conclusions based upon a 30-year accumulation of unceasing experimentation and sound scholarship. It cannot be repeated too often that the ways of science are slow and faltering, but that ultimately they result in solid contributions to human existence. As it was with the discovery and development of electricity, so it shall one day be with the understanding of, and hence control of, the business cycle.

SWEDEN

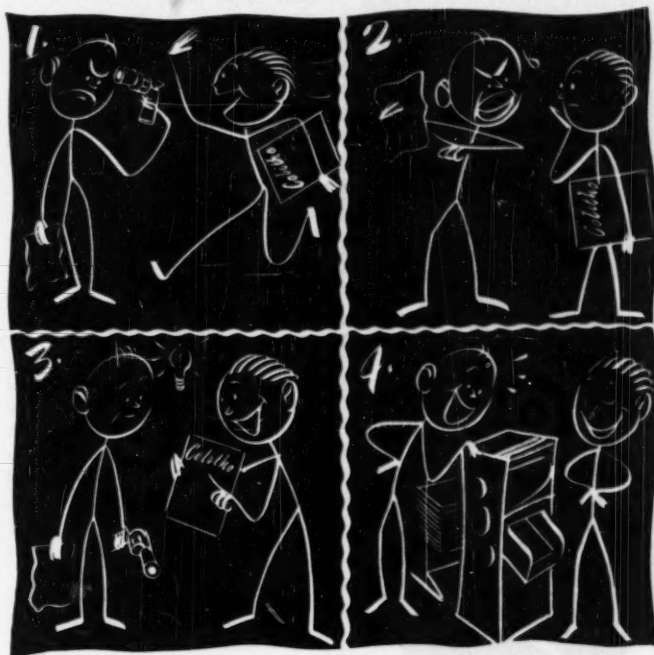
(Continued from page 21)

bank had prolonged discussions on this matter, together with spokesmen from the various political parties, representatives of banking and business, and the trade unions.

In short, all interests had a finger in the pie and when they finally came up with a decision it was that the krona should follow the pound all the way. Thus, the pound rate was kept unchanged and the dollar rate was raised from 3.60 to 5.18 kronor.

So while on the face of it, this adjustment connotes a devaluation of the Swedish krona by 30.5 per cent, the effect of the appreciation in 1946 must be borne in mind. On the basis of the dollar rate of 4.20 kronor quoted before July 1946, the depreciation of the krona

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against the dollar of September 1949 is only 19 per cent.

The decision to follow the pound with a 30 per cent devaluation was far from a unanimous one in Sweden. Many financial experts of Sweden felt their country should just return to the original level of the krona of July 1946 or, at most, should not devalue over 20 per cent. The main argument for partial devaluation ran that a less drastic percentage than Britain's would prove less upsetting to the Swedish economic equilibrium.

Protect Competitive Position

But there were powerful arguments on the other side. First and foremost, it was necessary to protect the competitive position of Sweden's export trade. Swedish goods were competing with British goods all over the world and anything other than a 30 per cent reduction would place the British manufacturers in a position to quote better prices than the Swedes.

Furthermore, a study of comparative cost developments in Sweden and Great Britain made earlier during the year showed that, when compared with pre-war levels, hourly wage rates in Swedish industry had risen a full 25 per cent more than British wages if account were taken of the adjustments in the relative exchange rates since 1938.

It was also feared that failure to cut by 30 per cent would have adverse repercussions on Swedish shipping which obtains a goodly portion of its revenue in sterling and is competing very actively with British and Norwegian shipping. The Norwegian krona had followed the sterling devaluation immediately and to the full extent. And finally, it was thought that a less radical trimming in the value of the Swedish krona might have caused continued speculation against the krona.

Relative to effects of devaluation on the stabilized Swedish economy, internally and externally, in the time that

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has elapsed since that memorable day in September 1949, many trends are clearly discernible.

Whether the verdict of economic history will place the step of devaluation of September 1949 on a par with another such historic step of September 1931 is still too early to tell. We do know, as the charts reveal, that the most recent devaluation has provided a new stimulus for the Swedes to increase exports to the dollar area.

"If proper advantage is taken of the new possibilities, the currency adjustment should gradually prove to be a substantial help in our efforts to balance our dollar payments and thus find the solution to a question which for us, as for most countries of Western Europe, constitutes the most vital problem of foreign trade," said Dr. E. Browaldh, Director of Svenska Handelsbanken (one of Sweden's leading banks with 300 branches throughout Sweden and assets of three billion kronor) at a shareholders' meeting on March 10, 1950.

What Devaluation Implies

Swedish leaders do not feel inclined to believe that because devaluation was justified and necessary September 1949 that it is to be regarded as an effectual way of reconciling differences which will inevitably arise out of the internal and international cost levels. No matter how eloquently cheap money advocates may argue for the merits of devaluation, bankers are ever ready to remind them that a devaluation implies a declaration of failure in attaining the objectives of national economic policy by other means.

Sweden's international financial disequilibrium cannot be traced, like in so many other devaluing countries, to the effects of war, but arose rather from the inability of the Swedish Government to overcome those inflationary tendencies which forced up production costs to an internationally non-competitive level. Many of these financial difficulties arose from too rapid an expansion in the post-war years in all directions.

Seen in this light, devaluation became inevitable as a wringing-out process, due primarily to the fact that Sweden had wandered so far from a cost equilibrium in relation to the dollar countries that it was no longer prac-

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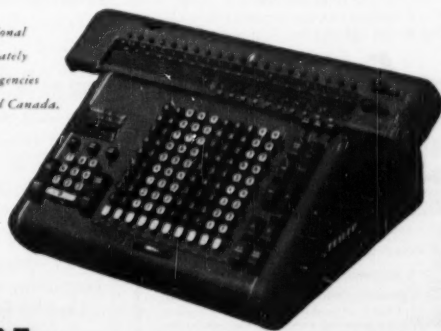
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ticable to attempt to force down domestic costs to an adequate degree.

However, one can safely say there is no enthusiasm for further devaluation in Sweden and many leaders in financial circles see the only lasting good of the September 1949 devaluation as affording an object lesson to the Swedes of how to avoid such measures in the future. The historic view that exchange rates must be held firm and only altered under extreme emergency still widely prevails.

Although there are undoubted external benefits for devaluation in competing with other countries for world markets, the fact remains that internally devaluation is a highly dangerous operation causing in itself strong impulses to a rise in the price structure. And once the spiral of inflation sets in, it can only be checked by setting up a rigid series of coercive controls.

Financial Soundness

That these views are safe and sound and that exchange rates should not be tampered with save in dire emergency, is a view widely held in official circles and has been one basic reason for Sweden's economically strong position through the years.

This financial soundness is exemplified by the fact that the Nobel awards have hovered close to \$40,000 each in value ever since they were first bestowed in 1901. Even in the severest depression years they scarcely fell below \$30,000. In 1931 they climbed as high as \$45,000; in 1948 they were \$44,400; and in December 1949 after the 30 per cent devaluation, the award checks amounted each to 156,289 kronor or about \$30,000.

Practically all the Nobel money is invested in Swedish securities, and the dividends remain constant whether a Conservative or Social Democratic regime is in power.

The freezing of wages since the Autumn of 1948 has been a strong contributory cause of economic equilibrium. This wage-stabilization program is of course contingent upon a subsidy policy adopted by the Government to keep living costs fixed.

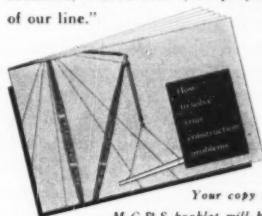
Despite the rather uncertain financial and economic dilemma of Sweden of one year ago with reference to foreign trade, particularly to the dollar area, we

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can see a balanced financial, trade, and industrial picture emerging by the end of 1950 in that democracy of the North. The inflationary pressure that was a serious problem at the close of 1949 has gradually disappeared.

Rationing, that bird of ill-omen and harbinger of economic dislocation, has taken wing and flown away from Sweden except in the case of that precious beverage, coffee, so dear to the heart of the average Swede. The necessity to ration coffee has only been due to continued rising prices on the world market of this commodity and the fact that coffee is, so to say, almost worth its weight in dollars has prevented the import quota on this one item from being lifted.

The coffee ration now stands at 250 grams, slightly more than one-half pound, per capita for each ration period of 35 days, a reduction of about 50 per cent below the ration in effect before the devaluation. Present consumption of coffee is about one-third of normal.

Industrialization

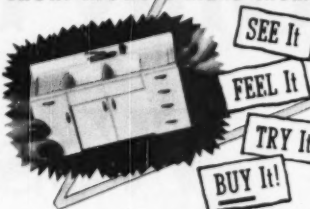
Industrial production in Sweden now seems to have risen according to the best available statistics to about 40 per cent above the pre-war level. At the same time the volume of productivity per man-hour has gone up considerably, which reflects positive results of a continuing industrialization.

Despite devaluation, prices have been fairly stable and the living cost index has only risen slightly since September 1949, making it possible for the Government to persuade the wage earners to agree to a freezing of wages and salaries for the year 1950. The freezing of wages and salaries, however, is not expected to last beyond December 31, 1950.

On the other hand, it must be pointed out that prices of some commodities have only been kept stable by means of Government subsidies which have diminished the otherwise not inconsiderable budget surplus.

One concrete blessing to flow from devaluation observable by the late Spring of 1950 is that foreign trade is moving upward. It is expected that imports during 1950 may increase by something like one billion kronor without any strain on the currency reserve. At present Sweden has no lack of im-

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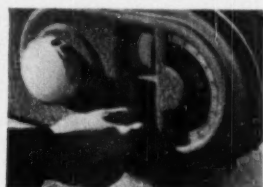
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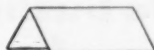
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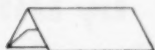
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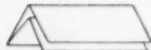
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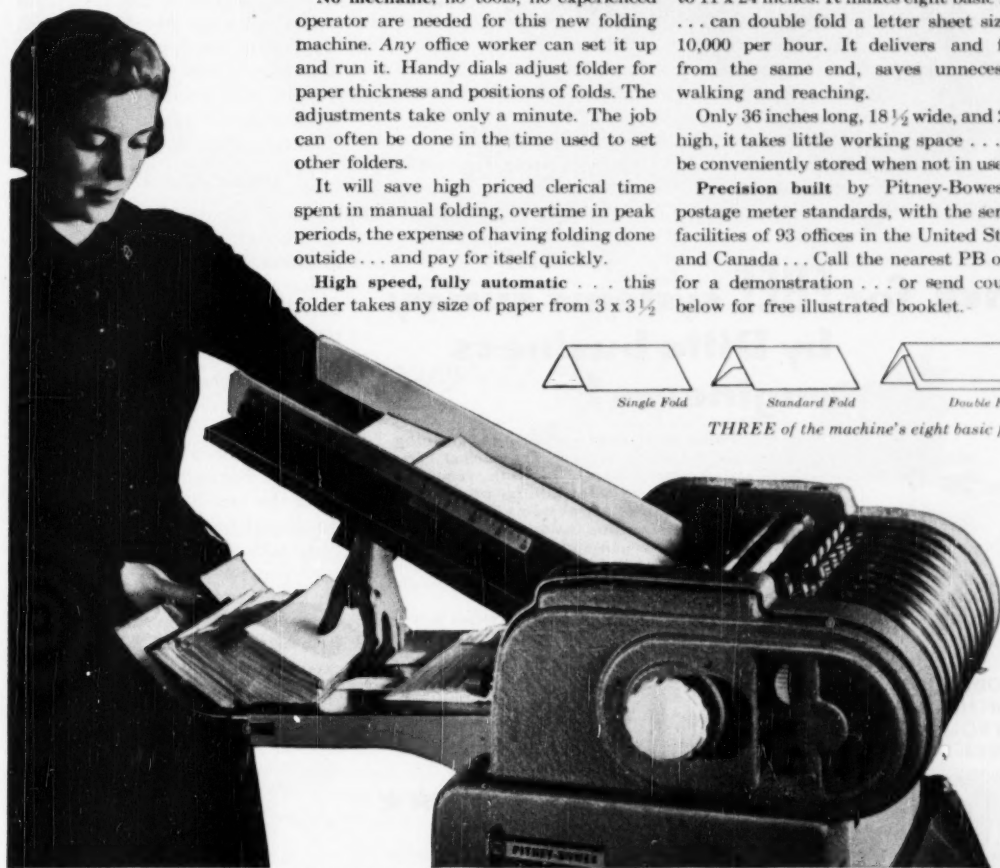


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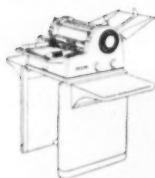
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ported raw materials or machinery for increased production, although her stockpiles of certain strategic materials are not as large as her leaders would like to see them.

Despite devaluation, the dollar question remains a thorny problem. The 1940-1945 period was a lush financial era when Sweden had a superabundance of dollars in her national till. But post-war factors, as we have seen, have gradually erased all this. Sweden's dollar shortage is but a part of the dollar famine of all of Europe, so it was inevitable that it would engulf Sweden.

This gap has only been partially filled by surplus exports to European countries that, through Marshall Plan aid, have been ultimately paid for in dollars. That is the so-called conditional aid which Sweden has received and which for the current year 1950 is expected to reach about 48 million dollars.

Dollar Area Defined

Because their stockpile of hard money is shrinking, Sweden has been forced to continue the policy of buying in the dollar area only those goods which could not be obtained elsewhere, or could only be bought elsewhere at considerably higher prices, and which are necessary for the maintenance and development of the Swedish economy and production. The dollar area might be loosely defined as North and South America, Portugal, and Switzerland. From this area Sweden purchased 50 per cent of her imports in 1947 compared with 29 per cent in 1939.

Sweden was mightily striving during the Summer months of 1950 to increase by all possible means her take from invisible exports. These invisible exports, which all contribute materially



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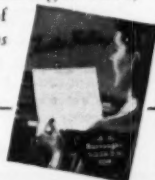
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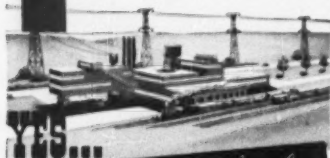
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to increasing her dollar holdings, consist of such things as income from shipping, money spent by tourists in Sweden, and income from foreign investments.

If Sweden is lucky, these invisible exports may reach the impressive total of one billion kronor or more in 1950 (in terms of the devalued krona). Usually shipping accounts for more than two-thirds of all these "invisible" gains.

Since the war, Sweden has entered into a series of reciprocal trade agreements or trade pacts with various countries to their mutual benefit. We may exemplify this by concrete illustration.

Trade Expansion

It is a remarkable fact that Sweden with a population slightly in excess of seven million people, has consistently been Great Britain's largest European trading partner in the five years following the conclusion of World War II. Sweden was in 1948 the second largest importer of United Kingdom goods outside the British Commonwealth (only the United States showed a higher import figure). At the same time Sweden was third after the United States and Argentina (outside the British Commonwealth) as a vendor of goods to Great Britain.

All this remarkable expansion of trade in 1948 between the two countries was achieved within the framework of the reciprocal trade agreement principle. While there are some ardent voices among the free traders in both countries, it is indisputable that the recent series of annual Anglo-Swedish trade pacts have been responsible for having the trade relations between the two countries crowned with such signal success.

For the year 1949, Sweden imported from Great Britain goods to the value of 746,300,000 kronor, and exported 727,200,000 kronor of goods to her number one customer. In both cases these total figures represented more than 17 per cent of the total exports or imports of both nations (see table, page 20).

Sweden has recently concluded trade pacts with France, Switzerland, Western Germany, Japan, and other countries which would seem to look forward to months of unprecedented shipping activity. Trade with Japan alone is supposed to total more than \$18 million for 1950, not an inconsiderable sum

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when distance and other factors are taken into account.

The current budget of Sweden might be a fair barometer of economic strength. Since 1938 Sweden has operated on a dual budget system, under which the over-all budget is divided into two separate units—a working budget and capital budget.

The working budget must be cyclically balanced. It comprises receipts from taxes, fees, social-security contributions, fines, and net earnings from invested State capital funds; against these are expenditures for current departmental expenses, service of the national debt, and contributions to the capital budget to cover losses on unproductive investment.

Under the budget proposal for 1950-1951, the working budget calls for total receipts of 5,138,500,000 kronor against total expenditures of 4,766,700,000 kronor, leaving a working budget surplus of about 372,000,000 kronor.

Budget Deficit of \$36,500,000

The capital budget covers expenditures of a long-term investment nature financed by certain funds other than current earnings. These include funds from State enterprises and other capital funds as well as appropriations from the working budget, the working budget surplus, and bond issues.

The total outlay under the proposed capital budget is set at \$78,700,000 kronor, against which there are expected to be funds available, without borrowing, amounting to 689,800,000 kronor (including the 372,000,000 surplus on the working budget). The resulting over-all budget deficit, is only 188,900,000 kronor, or \$36,500,000.

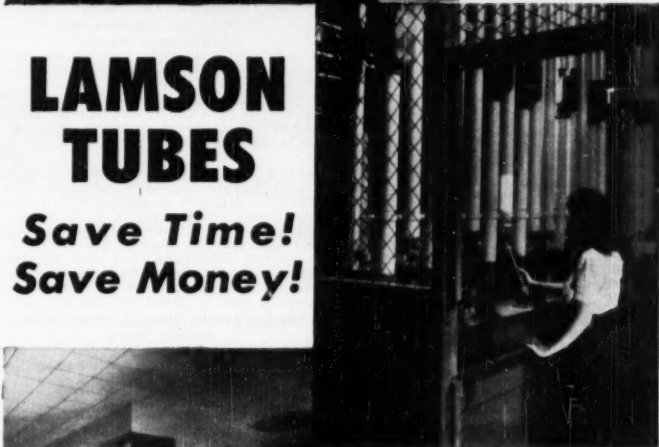
These figures would indicate a fundamentally healthy aspect of the Swedish economic system in spite of her greatly expanded social welfare program which reaches from "the womb to the tomb."

This program embraces social security against unemployment, old age, and obligatory sick insurance (which includes hospitalization, part of doctor's fees, and some cash benefits). Financial and medical maternity aid, free lunches for school children, low-cost vacations for all, and a host of similar reforms contribute to making the life of the Swedish family of 1950 vastly more satisfying than in say even 1900.



IN OFFICES—

where time is vital—Lamson Tubes rush mail, telegrams, reports, purchase orders and other important papers swiftly and safely to the proper desks. Illustrated at left is a typical airport installation for handling flight data, weather reports, reservations and office papers.



LAMSON TUBES

Save Time! Save Money!



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▲ IN HOSPITALS— Lamson Tubes handle mail, messages, histories, prescriptions, medicines, supply orders . . . even living tissue from the operating room to the laboratory. Illustrated at the left is a typical nurses' station on a private ward floor.

Here are only three typical installations, but they reveal the wide scope of service. Why not find out how Lamson Tubes can serve you?

Mail the coupon today for literature covering your particular problem.

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Company
Position
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- Import and distribute your goods...
- Act as factory representatives...
- Sell Canadian products to U.S. buyers... or
- Render professional services.

NOTE: Inquiries as to rates for listings on this page should be addressed to Dun's Review, 159 Bay Street, Toronto, Ontario, Canada; or any office of Dun & Bradstreet of Canada, Ltd.

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 MASECAR, DeROCHE & McMILLAN, Chartered Accountants, Saskatoon, Saskatchewan.
 MILLAR, MACDONALD & CO., Chartered Accountants, Winnipeg, Man. and 4 Albert St., Toronto, Ont.
 NASH & NASH, Chartered Accountants, 603 Tegel Building, Edmonton, Alta. and Grande Prairie, Alta.
 NIGHTINGALE, HAYMAN & CO., Chart. Accountants, Halifax, N. S., also Sydney & Yarmouth, N. S.
 ROBERTSON, ROBINSON, McCANNELL & DICK, Chartered Accountants, Sterling Tower Bldg., Toronto, Tyshier Bldg., Chatham, Ont.
 P. S. ROSS & SONS, Montreal, 1, Que., Toronto, Winnipeg, Calgary, Vancouver and Saint John, N. B.
 THORNE, MULHOLLAND, HOWSON & McPHERSON, Toronto, Kitchener and Galt, Ontario.

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Novelties, Leather Goods, Advertising
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In the post-devaluation era, new encouraging signs are seen with regard to the possibility of increasing Swedish exports to the dollar area. Many delegations of Swedish business men have visited the United States during the past nine months. New connections are usually opened up and dollars start flowing toward Sweden.

This has led Swedish bankers to feel confident that when Marshall Plan aid stops in 1952, they will be able to maintain their present high production and present standard of living with the dollar imports which can be paid for both with Sweden's visible and invisible exports.

More Exports Needed

While the volume of industrial production in Sweden has risen from 40 to 45 per cent since 1938, the volume of exports remains 15 to 20 per cent below the 1938 level. So it logically follows, if devaluation is to provide Sweden with any permanent relief in her international payments situation, more export goods must be moved. An increase in inflationary forces would, of course, render this task considerably more difficult.

The interdependence with regard to other European states is such an intimate one that a basic condition for lasting financial health is that a satisfactory arrangement be arrived at with regard to the relation between the sterling and dollar areas.

One great apprehension which many Europeans entertain is that an anomalous situation may result whereby the European economy and the sterling area will form a separate entity from that of the dollar area, which will lessen the normal interchange between the two systems. This of course would produce an unhealthy result. The ultimate goal should be not only a European integration, as urged by Mr. Hoffman, but also an integration between the dollar area, the sterling area, and the European economy.

Whatever turn the trend of world prices takes, devaluation has left in its train a large number of problems and risks which threatens to counteract the immediate benefits obtained from the exchange adjustment. To keep the ground already gained, Sweden must maintain a dynamic and purposeful

31,351 PRESIDENTS

There are 31,351 company presidents reached by DUN'S REVIEW each month. A name-by-name analysis shows that they are the heads of active companies throughout industry and business. In addition within an average total edition of 88,644, there are 17,000 Owners, Partners, and Chairmen; 3,380 Vice-Presidents; 2,697 Treasurers; 3,703 Secretaries, and so on.

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SOUTH BEND, INDIANA
CAPITAL AND SURPLUS IN EXCESS OF \$44,000,000

economic policy to combat any renewed inflationary tendencies. If this task is mismanaged, the position of Swedish exports may be back again where they were before devaluation.

The mutual development of Swedish and American trade as the months go by, will contribute immeasurably to the strengthening and furthering of that free world in which we are all so vitally interested and which we are all equally anxious to preserve from its enemies from abroad and from within.

DUN'S REVIEW

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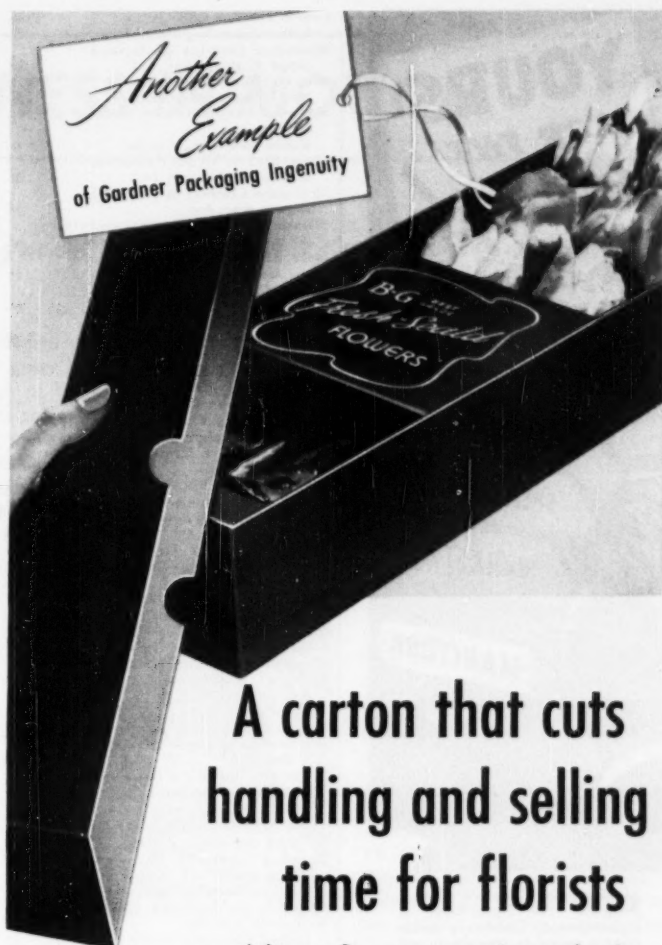
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A carton that cuts handling and selling time for florists

... delivers flowers greenhouse-fresh

Why couldn't cut flowers be pre-packaged like many other consumer items? This would lessen handling between wholesaler and customer, would speed up retail selling.

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The Gardner Board and Carton Co.

Manufacturers of Folding Cartons and Boxboard • 403 Charles St., Middletown, Ohio
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The latest economic survey "Manitoba—and the Western Market" presents details on the extensive and wealthy market comprising Western Canada from the Great Lakes to the Rockies.

For a free copy, write on your business letterhead to Department 118.



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It pays to do business in New York State!

Need to be near suppliers? The Empire State produces a multitude of processed and semi-processed materials and equipment. New York's extensive transportation network puts its 59,400 factories at your doorstep—plus the resources of the entire nation and, in fact, of the world. New York is in the center of your major markets. These factors will make your total transportation bill lower in New York State than anywhere else. For more facts, write: N. Y. State Dept. of Commerce, Room 141, 112 State Street, Albany 7, New York.

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Postcard Printing Guide, \$2.50 extra
Fast, economical, accurate way to make copies. PRINTS 1000 OR MORE CLEAR COPIES FROM ONE STENCIL, ONE INKING. Simply type, write, trace or draw on stencil, snap it on, and print on postcards, boxes, cartons, tags, labels... much like using a rubber stamp. NO moving parts, of non-corrosive METAL, lasts indefinitely. Replaceable ink pads. Prints up to 19 lines 5 1/4" long. With supplies in handy, durable case. 5 complete outfit sizes, \$9.50 to \$99.50. New colorful 1950 packaging. Write for FREE FOLDER. At Your Office or Shipping Room Supply Dealer

BUSINESS IN MOTION

To our Colleagues in American Business ...

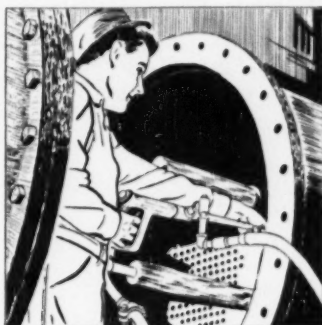
Because Revere salesmen and Technical Advisors call upon companies in practically every industry, they acquire a rather amazing fund of knowledge about many widely different products and processes. When no trade secrets are involved, knowledge thus acquired from one company often can be transmitted to another, with mutual benefit. Take the problem Revere found in the condensers of an East Coast electric utility. Cooling water comes from the harbor, with the result that the tubes quickly become coated with algae and other marine organisms, reducing the vacuum and hence increasing fuel consumption.

The utility is exceptionally well managed, and has a systematic program of tube cleaning. However, it was found difficult to clean the tubes effectively. Brushes and rubber plugs, pushed through the tubes, wore out rapidly, so that the operation was inefficient and costly. Though the condenser tubes were not made by Revere, we took an interest in this. A Revere customer makes special nylon-bristled brushes just for cleaning tube and pipe in dairies. The Technical Advisor suggested trying a slight modification of these. Results: over 300 tubes well cleaned per brush, a much longer life than anything previously used and a half-inch gain in vacuum, meaning dollars and cents saved in fuel.

There was another problem here, arising from the fact that the brushes are propelled through the tubes by an air-water pressure gun, operating at about 75 pounds per square inch. See illustration. Under that pressure a brush comes out of the far end of the tube like a projectile from a gun. It has to be stopped by something strong enough to take the shock, but

not hard enough to damage the brush. Canvas and plywood were tried, without satisfactory results as either target or brush was injured, or both. Revere suggested making a target of foam rubber, and not only that, found a source of supply of rubber of the right consistency. This combination works perfectly, and is in part responsible for the record of 300 tubes cleaned per brush.

The average person would not think that an electric generating station would find good uses for nylon



brushes, foam rubber, and plywood, but Revere through its contacts with many industries, was able to combine these three items into a practical solution to a particular problem. The electric company states that when next it buys condenser tubes, Revere will get the order. That, however, is not the point of this advertisement. The significant thing is that here we have an example of a supplier, Revere, recommending products other than its own, and acting as an advisor without fee. In the

course of our daily contacts we often note other suppliers of materials to industry doing much the same thing, so we claim no special virtue.

The purpose of this advertisement is to use an example to point up our recommendation that no matter what you buy, no matter what you make, you take your suppliers into your confidence. You can benefit not only from their knowledge of their industry and its products, but also acquire non-confidential information about other industries and products. Facts thus obtained may be of considerable value to you, yet cost nothing to obtain. All you have to do is ask.

REVERE COPPER AND BRASS INCORPORATED

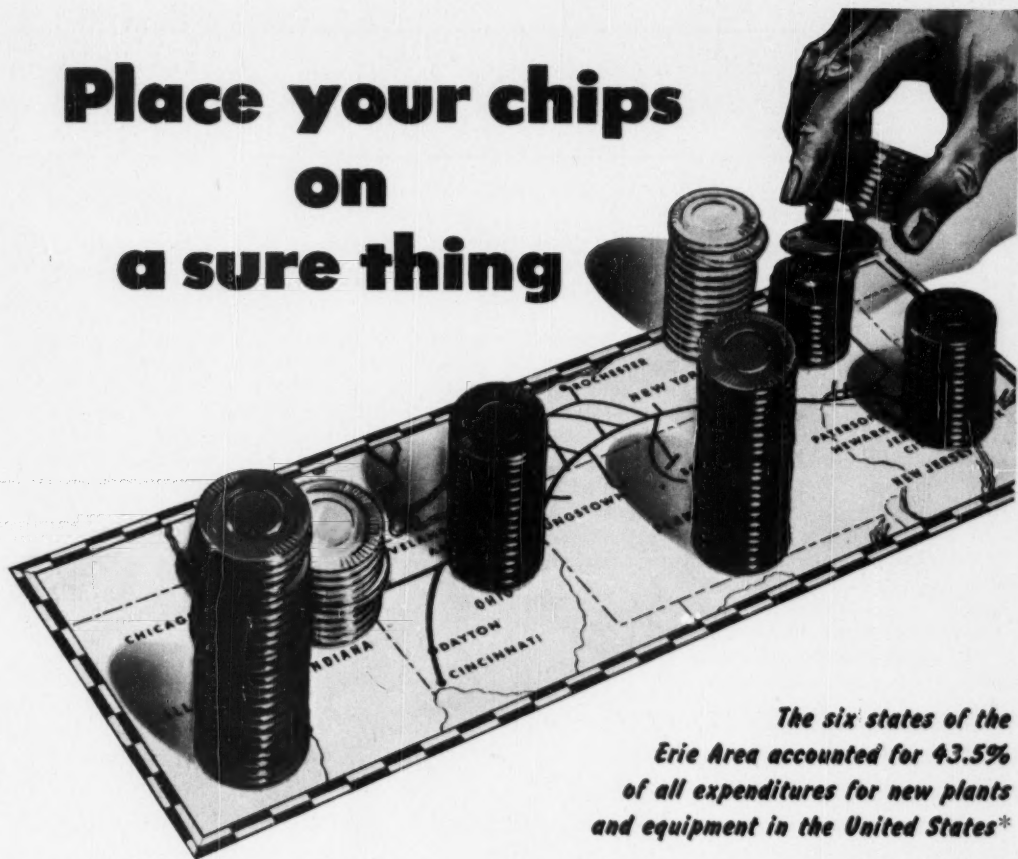
Founded by Paul Revere in 1801

☆☆☆

Executive Offices:

230 Park Avenue, New York 17, N. Y.

Place your chips on a sure thing



*The six states of the
Erie Area accounted for 43.5%
of all expenditures for new plants
and equipment in the United States**

IF you are looking for the right spot for a plant, you should take a good look at the Erie Area.

These six states have such an overwhelming lead in manufacturing—45% of all the United States—that the other statistics are correspondingly good.

The Erie Area accounts for 34.27% of the population, 40% of the national income and about 1/3 of the retail trade. Skilled labor, as you

would expect, is plentiful, because of the many opportunities in the area.

To top all this, you are served by the dependable Erie Railroad that connects with other railroads north, south and west and with the famous harbor of New York.

Our experienced personnel will be glad to help you find the right spot for your plant in the Erie Area—the area that has the best of everything!

Here's how to get action!

Send an outline of your requirements and preferred location to:
Mr. A. B. Johnson, Vice President,
Room 500, Midland Building,
Cleveland 15, Ohio. All information
will be held in strict confidence.

*Source: Census of Manufacturers, 1947 Report MC100-8



Erie Railroad



SERVING THE HEART OF INDUSTRIAL AMERICA